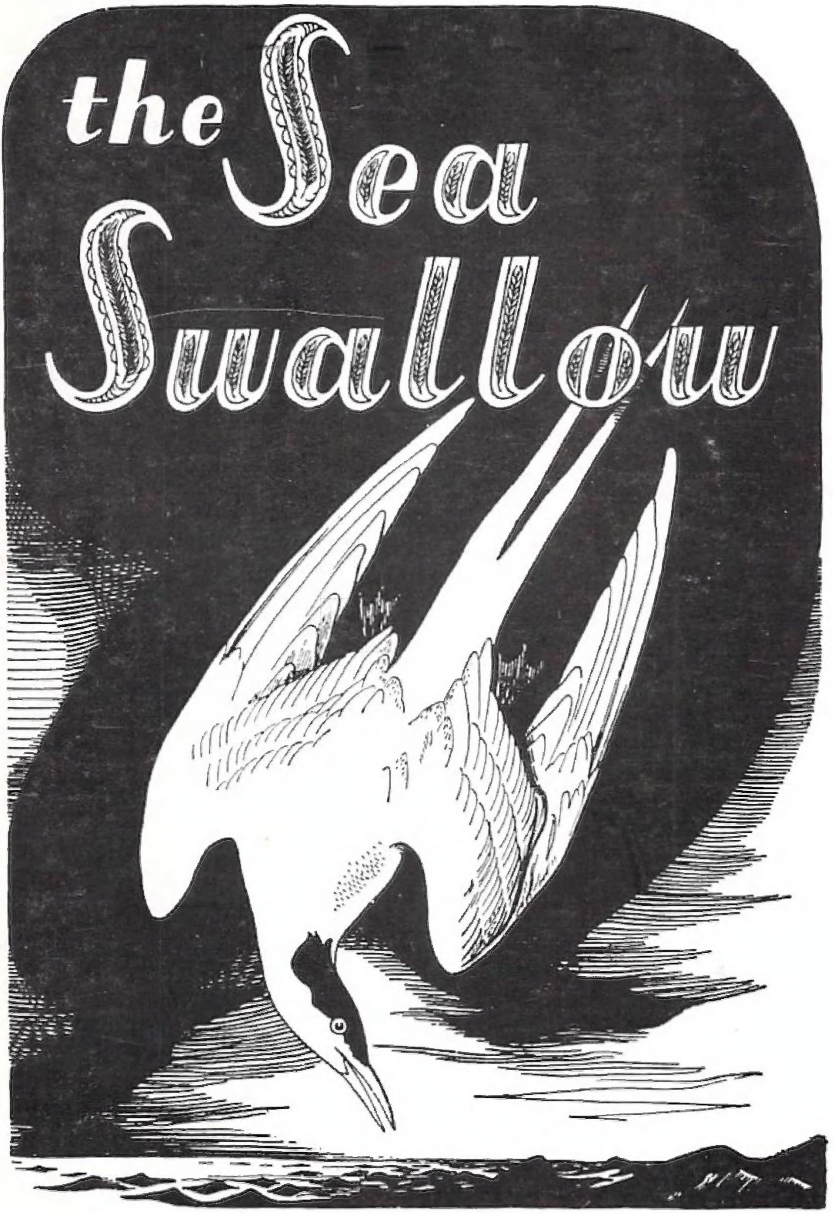
VOL. 32 1981/82 PRICE £3

the Sea Swallow



BEING THE ANNUAL REPORT
OF THE ROYAL NAVAL
BIRD WATCHING SOCIETY

PUBLISHED 1983

ROYAL NAVAL BIRDWATCHING SOCIETY

Affiliated to:

The International Council for Bird Preservation, British Section
The British Trust for Ornithology

Patron:

His Royal Highness The Duke of Edinburgh, K.G.

President:

Vice-Admiral Sir Peter Stanford, K.C.B., M.V.O.

Vice-Presidents:

Captain G. S. Tuck, D.S.O., R.N., M.B.O.U.
The Master, The Honourable Company of Master Mariners
Commandant Patricia Swallow, W.R.N.S.
Miss Jean Robertson, Matron-in-Chief, Q.A.R.N.N.S.
Commander Sir Peter Scott, K.B.E., D.S.C.

EXECUTIVE COMMITTEE

Chairman and Editor. Commander M. B. Casement, R.N., Dene Cottage, West Harting, Petersfield, Hants., GU31 5PA

Honorary Secretary and Treasurer. Lt.-Cdr. E. S. W. Maclure, R.N., "Melrose," 23 St. David's Road, Southsea, Hants., PO5 1QH

Vice-Chairmen. Captain Sir Thomas Barlow, Bt., D.S.C., R.N.
Captain P. W. G. Chilman, M.N.

Assistant Editor. Chief Officer S. E. Chapman, M.N., M.B.O.U. Steeplefield, Marlpost Road, Southwater, Horsham, Sussex, RH13 7BZ

Subscription rates. Full members £5 annually. Associate Members—Cost of *Sea Swallow* (£3) plus postage.

Enquiries for membership to Honorary Secretary.

Material for publication in *Sea Swallow* should be sent to the Editor (see instructions to authors inside back cover).

Completed record forms for seabirds should be sent to Stephen Chapman, and for landbirds to the Chairman.

For replenishment of all record forms apply to C.P.O. C. A. R. Bailey, C.M.E.M.(2), 8 Grange Close, Gosport, PO12 3DX, Hants., giving full details and enclosing a stamped and addressed envelope.

For details of local representatives and other useful addresses see inside back cover.

CONTENTS

	Page
EXECUTIVE COUNCIL	*inside back cover*
FOREWORD	1
EDITORIAL	3
1982 JOINT SERVICES EXPEDITION TO SOUTH GEORGIA By Lieutenant M. D. R. Kelly, R.N.	4
NOTES ON SEABIRD REPORTS RECEIVED 1981-82 By Stephen E. Chapman	12
BIRDS ON PULAU DAMAR By Stephen E. Chapman	22
LANDBIRDS FROM SHIPS AT SEA 1981-82 Analysis by Commander M. B. Casement, M.N.I., M.B.O.U., R.N.	23
OCEAN WEATHERSHIP LANDBIRD REPORTS 1981 By Commander M. B. Casement, R.N.	42
THE BIRDS OF DIEGO GARCIA By Leading Medical Assistant M. J. Howells, R.N.	42
AUTUMN MIGRATION OF LANDBIRDS OFF NORTH BORNEO IN 1981 By Captain D. M. Simpson, M.N.	48
OBSERVATIONS OF SEABIRDS FROM H.M.S. *HECLA* DURING THE FALKLANDS CAMPAIGN APRIL-JULY 1982 By Srgn. Lt.-Cmdr. D. G. Bruce, M.B., Ch.B., M.Sc., A.F.O.M., R.N.	54
SEABIRD OBSERVATIONS FROM SIX PACIFIC OCEAN CROSSINGS By P. and K. Meeth	58
THE APPEARANCE AND CLASSIFICATION OF THE *COOKILARIA* PETRELS By Dr W. R. P. Bourne	65
IDENTIFICATION OF GIANT PETRELS *MACRONECTES* Spp. By Stephen Hunter	72
A CORPORATE VIEW OF THE *INVINCIBLE* FALKLAND PIGEON By Commander F. Milner, R.N.	77
SHORT NOTES	
A Satellite View of Bird Migration between Iceland and Scotland. Dr W. R. P. Bourne	80
Birds seen at the Tembungo Gas Flare, North Borneo during the development of Typhoon 'Clara'. Captain D. M. Simpson	82
Great Skua attacking and killing Herring Gull at sea. Bernard King	83
Feeding Behaviour of Wintering Gulls. Bernard King	84
BOOK REVIEWS By Dr W. R. P. Bourne and S. E. Chapman	86
USEFUL ADDRESSES	*inside back cover*

Line drawings: Peter Harrison and Kathy Meeth

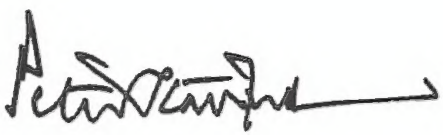
Dinwiddie Grieve Ltd, Dumfries

FOREWORD

I consider myself to be highly privileged in being invited to become President of the Royal Naval Bird Watching Society. I am conscious of the enormous amount of effort put into the Society's work by all those before me, and of their success in bringing the standing of the Society to its present level. Not least am I aware of how difficult an act I have to follow in taking over from Admiral Sir Nigel Henderson.

I have never been much of a hand at jumping on to the fo'c'sle capstan on Day One. It would in any case ill become a fledgling President to attempt such a thing. Yet I suppose that if I tried in this, the first of what I hope will be many Forewords in *Sea Swallow*, to articulate a view on what I see as the way ahead, it would reflect my own approach to ornithology. I have watched birds all my life, all over the world, both as an aim and incidentally while enjoying other things. But, being of a wholly unscientific mentality, I have been aware only dimly how important adequate, accurate and full reporting is to the sum of human ornithological knowledge, and thus to the further enjoyment which better information can bring.

It seems to me that our Society is well placed to bridge that gap; to provide an outlet for the enthusiast who is simply enjoying identifying the storm-petrels fluttering in the wake; and at the same time a useful input to the sort of studies which culminated not so long ago in Captain Gerald Tuck's marvellous book. I hope to be able to encourage the link, and I believe that the way in which the Royal Navy is employed, and deployed, today offers excellent chances.



Adult Blue-eyed Shag *Phalacrocorax atriceps*, South Georgia,
Joint Services Expedition, 1982
Photo: Lt. M. D. R. Kelly, R.N.

EDITORIAL

This year's *Sea Swallow* is a bumper edition and, I hope members will agree, an especially interesting one. Certainly it more nearly achieves the balance overall which your editors have been striving to achieve in order to reflect the very varied activities of our membership. The main credit for this is due once again to Stephen Chapman. We receive reports from the Arctic and Antarctic and from every sea area in the world and aim to please both the professional ornithologist and the amateur enthusiast so aptly described by our new President, Admiral Sir Peter Stanford, in his Foreword.

Our society is unique in many ways and aims to attract and retain the interest of members of widely differing backgrounds and knowledge. Our members range from senior officers now in their 80's who helped found the society 37 years ago, and on whose continued support we greatly depend still today, to the young sailor about to join his first ship. It is on the latter that I feel we all now need to devote more attention in *Sea Swallow* because it is on this age group that the future health of the society critically depends. Without support from the youngster at sea, with a pair of binoculars, a reference book and the odd dog-watch to while away, our society would soon cease to have the right to exist under its present title.

Members of RNBWS share only two things in common — the sea itself and an interest in birds — and in *Sea Swallow* we aim to please you all by achieving a nice balance between the scientific and non-scientific, between seabirds and landbirds, and between serious and lighthearted. This is an almost impossible task and we do not claim to have fully achieved the correct balance; I am the first to agree that my analysis of landbirds is too long but it does cover two years of observations and I was unable to prune it shorter without doing an injustice to the many who sent in their records.

I am pleased to note a welcome increase in contributions this year from the Royal Navy, but the bulk of the completed record forms laboriously analysed by Stephen and myself came from the Merchant Navy and extracts from Meteorological Logs. Thanks are due to Captain C. R. Downes at the Met. Office, and also to Captain A. S. Young M.N. who has taken over the task, previously done by Captain Truck, of sifting through these and maintaining close links with the *Marine Observer*.

I am especially pleased to see two articles covering the South Atlantic during the Falklands campaign and I look forward to seeing more from this ornithologically exciting part of the world. I have high hopes that plans to co-ordinate the observations between ships of the same task group, and also with the Army and R.A.F. birdwatchers ashore in the Falklands, will enable RNBWS members to pool their experiences and share with us in *Sea Swallow* next year.

Please therefore read this volume critically and let us know what you think. If you like what you see may we please have more of the same next year. If not, let us have your proposals and contributions for inclusion. Dig out your records and write them up. Your editors can do no more than mirror the activities and views of our members and what appears in print next year depends on YOU. Please also note the amended deadline for copy — by 1st February 1984 please.

Best wishes to you all in the coming year, and for those of you lucky ones who are at sea, make the most of it.

MICHAEL CASEMENT, *Editor*.

1982 JOINT SERVICES EXPEDITION TO SOUTH GEORGIA

By Lieutenant M. D. R. Kelly, R.N.

INTRODUCTION

On 15 March 1982, only two weeks before the Argentinians landed a party on South Georgia, and precipitated the events which were to ensure a place in history for the Falkland Islands and their Dependencies, a party of 15 servicemen left South Georgia having spent three months on the island. The three months of the Antarctic summer gave those involved a marvellous insight into this remote part of the globe, which now more than ever needs our attention to preserve its natural resources from the threat of man.

South Georgia is a mountainous island, very different from the rolling moorland of the Falklands. It lies on the same geological ridge which runs from the tip of the Andes to link up with the Graham Land Peninsula on the Antarctic mainland. The mountain peaks of loose grey wacky rise sheer from the sea in alpine splendour and between them flow long glaciers filling the valleys, providing the highways of the island. Is is the geographical position, however, which makes it both a harsh, inhospitable land for the explorer, and paradise for the ornithologist.

OCEANOGRAPHY

The island lies in the path of two great forces: the westerly winds which sweep around the Southern Oceans, and the currents flowing north-east from the pack ice of the Weddell Sea. These two factors contribute to bring weather far harsher than that of the Falklands. The expedition frequently recorded winds in excess of 60 knots, and spent many days in blizzards when movement around the island was impossible.

The second of these factors, however, causes a fascinating chain of events which results in the vast numbers of birds occurring around the island. Water melting from the Antarctic ice cap is forced north and east as a result of the Coriolis effect. It is less saline, colder and less dense than other currents in the area and floats on the surface. Its low temperature means it is rich in dissolved oxygen; and it also carries nitrates and phosphates welling up from the deeper currents on the Antarctic Continental Shelf. These elements combine to provide ideal conditions for the growth of phytoplankton: small monocellular plants thriving in the long daylight of the Southern summer. These plants are at the bottom of a food chain leading up through the zooplankton to the prawns and squid which abound in the Antarctic Ocean. This ocean is so rich in life that it has a greater density of protein than any agricultural organisation that man can produce. The greatest source of this protein is the krill or small shrimps of which

Euphausia superba is one of the predominant species on which most of the birds and mammals of the area feed. At around 50° South the current meets less dense, more saline south-flowing warm water and sinks beneath it. The plankton cannot survive in the more saline water with less oxygen and nitrates, nor can it live deeper without the light to enable the phytoplankton to photosynthesize. This area is known as the Antarctic Convergence. It is a buffer zone teeming with life, which eventually dies and sinks, to be taken south again in the bottom currents. This detritus provides the nitrates and phosphates required by further generations of plankton.

South Georgia lies just south of the Convergence Zone and laterally across the surface currents, like a plank held across a stream. The eddies around the two ends of the island give rise to an abundance of krill on the leeward side in comparatively calm conditions. Most of this side of the island is sheltered from the stronger winds, and has many tussock cliffs and beaches, providing ideal nesting sites, and is alive during the summer months with breeding birds.

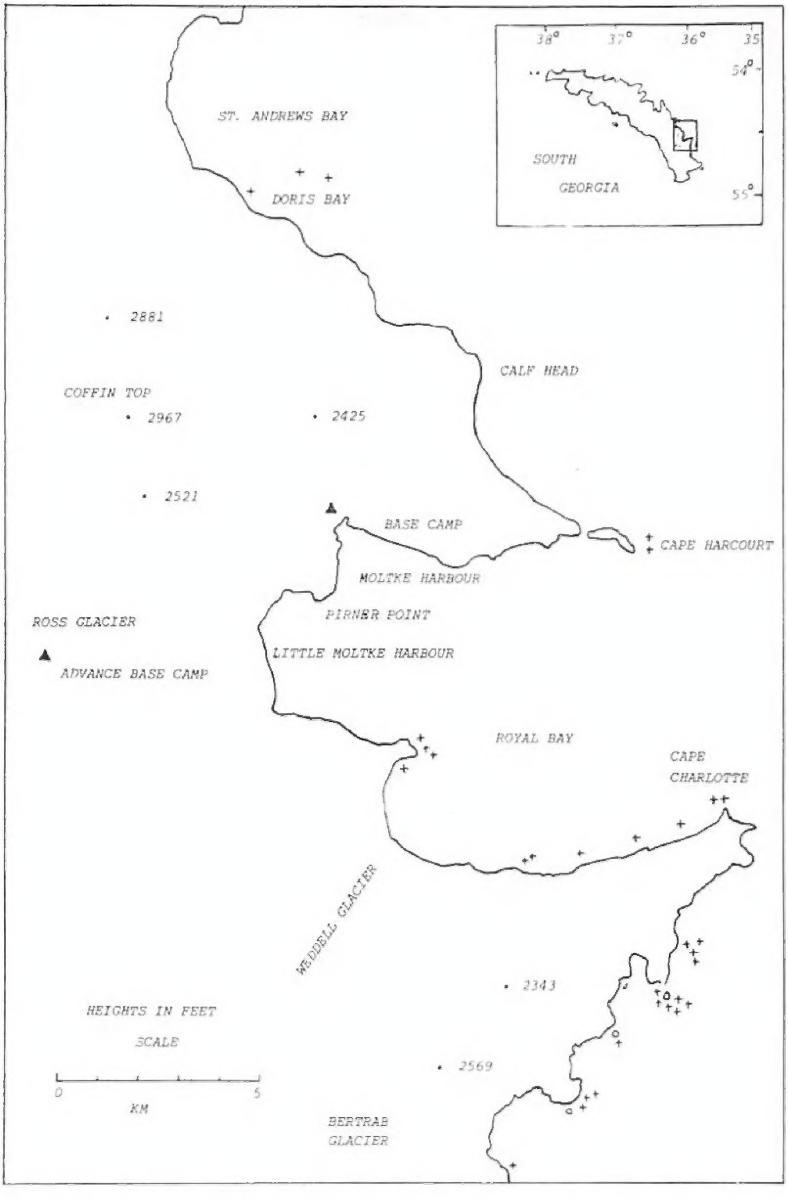
THE EXPEDITION

The Joint Services Expedition to South Georgia was not a mobile expedition as past Antarctic JSEs have been. It operated from a base camp in the east end of the island, see Map, and parties travelled out in both directions in search of their particular aims.

The expedition had two ornithologists: Lieutenant Adrian Hughes, R.N., and myself. We were given a great deal of assistance and advice by the expedition ecologist, Lieutenant-Commander Hamish Craig, who, but for his hard (and successful) work on the introduced reindeer of the island and associated entomology studies, would have loved to have spent his time watching birds. All the expedition, however, were struck by the grandeur of the wildlife with whom we shared the island. We set ourselves various projects, some of which were totally outside our resources, others however were more easily accomplished, and fruitful in results, such as our observations of the growth and development of the young Light-mantled Sooty Albatross *Phoebetria palpebrata*. Our major successes were in the recording and counting of the bird life we found in little visited parts of the island, and the satisfaction to ourselves in developing a deep understanding of the life cycles of some of the most fascinating species of seabirds by watching and taking copious field notes, photographs and sound recordings.

THE ISLAND AND ITS BIRD LIFE

The camp was established in the valley by Little Moltke Harbour on Royal Bay, see Map, a valley we shared at night with the mating calls of Elephant Seals on the beach, and the continual braying of a colony of Gentoo Penguins *Pygoscelis papua* on a



Map
East part of South Georgia showing Expedition Base Camp and locations visited.

raised tussock mound 100 yds. from our tents and huts. I would admit my error at this stage of the expedition was not starting work early enough. There was lots to be done in arranging stores dumps and preparing our future logistics, but much could have been achieved in both recording and counting birds during the two weeks before Christmas. The summer in South Georgia is short and fast moving; we missed the early breeding cycles of some of the birds due to our late arrival but by missing a count of Gentoo eggs, or chicks on their nests, a return a week later makes the job almost impossible as they desert the nests to form creches wandering around the colonies. In this initial period we did however identify the site around Calf Head, about two hours walking north of our base at Lewin Camp, as most suitable for recording data on the Light-mantled Sooty Albatrosses, or LMSAs as they became.

The first phase of the expedition, after the initial two weeks leading up to Christmas, was spent by both ornithologists travelling to remote parts of our southern tip of the island in order to record what birds bred there. We left the LMSAs sitting on their eggs, to be weighed by our radio operator who had Achilles' tendon trouble and was confined to only limited journeys from camp. He and Hamish Craig, taking time off from his reindeer dung beetles, managed to take some superb photographs of hatching eggs.

Adrian Hughes travelled with a party going down the centre of the island along the blizzard-swept glaciers where the only birds were the skuas and Snow Petrels *Pagodroma nivea*. Always the opportunists, the skuas would sit in even the worst weather outside a tent waiting for some scraps of compo. When the party reached the coast on the south side of the island, in addition to counting the usual colonies of Gentoo and King penguins, they had two finds of great significance. Firstly, a nesting colony of Wandering Albatrosses *Diomedea exulans*, the largest seabird in the world; and secondly, flocks of the South Georgia Pipit *Anthus georgicus*, probably a subspecies of the pipits found in the Falklands and Patagonia. It is the only passerine found within the Antarctic Convergence, and its nests are threatened by the rats which arrived in the ships bringing the whalers to South Georgia at the beginning of this century. This colony was in a bay cut off from the rats by the glaciers and hence is of particular interest.

My party crossed the Ross and Hindle glaciers and descended to the coast at Gold Harbour. We travelled in both directions observing and counting. In every bay we found colonies of Gentoo Penguins and non-breeding or juvenile King Penguins *Aptenodytes patagonicus* and occasionally a solitary Chinstrap Penguin *Pygoscelis antarctica*. The Gentoos nest on mounds of glacial morraine in the green valley bottoms, probably because in the early part of the season this is all that emerges from the snow cover. The colonies vary in distance from the sea, some actually being on the beach while the furthest away was 1 km. from the coast. The tussock grass between the colony and the beach is full of paths

trodden out by adults on returning from feeding trips. The nests are scrapes, surrounded by small pebbles, which, as with Adelie Penguins *Pygoscelis adeliae,* play such a significant part in the Gentoo courtship. The normal clutch is two eggs and most nests seem to have two chicks; however, predation of the eggs by the giant skuas which nest close by is great. Every Gentoo colony has its skua nest while the larger ones have two or three. As the eggs hatch the chicks remain on the nest for a few weeks until they grow too large and then creches appear. These flocks of grey and white down-covered young wander around the site where once the nests stood and only a few adults remain. Amongst the creches are to be found adults on solitary nests with unhatched eggs, probably eggs laid late after the first clutch was predated by skuas. These eggs usually hatch but the growth of these chicks is severely retarded, and I doubt that many survive the first winter. Towards the end of the expedition we observed the adults returning to the colonies to moult at the same time as the chicks moult to adult plumage and are able to swim and fish for krill themselves. One interesting observation during the last week of our time was at a Gentoo site at Calf Head which had hitherto been largely deserted as the adults and chicks had moulted. We returned to find the nests occupied again and frantic displaying and pair-bonding activity in progress, and all at the end of the season; I have as yet found no explanation for this.

Travelling to Iris Bay we encountered steep tussock cliffs with an abundance of LMSAs and one colony of Blue-eyed Shags *Phalacrocorax atriceps*, but there were King and Gentoo Penguins everywhere including one King Penguin colony in Iris Bay which by its small size was obviously fairly new. The land behind Iris Bay was a flat and stony field of terminal moraine and amongst the stones a large colony of Antarctic Terns *Sterna vittata* nested. They advertise their presence by noisy calling in flight and divebombing attacks on an intruder amongst their nests. The nests and chicks however are almost impossible to find, owing to their superb camouflage.

On the northward journey out to Cape Charlotte we passed the vast King Penguin colony numbering in excess of approximately 10,000 pairs of breeding birds, a truly magnificent sight with the birds tightly packed along the banks of a meltwater stream and even nesting on rocks in the stream itself. The last attraction of the area was a large Macaroni Penguin *Eudyptes chrysolophus* colony near Cape Charlotte. We came to discover more about these two fascinating penguins during the second phase of the expedition.

The expedition all mustered at the Lewin Camp for a halfway point celebration after which we split up to do our various projects. Adrian and I devoted the last six weeks to consolidating our knowledge with detailed surveys of the areas around the base camp. Our work centred around a weekly visit to Calf Head to weigh the chicks of the LSMAs. This site consisted of a headland of sloping

tussock cliff with wave-cut rock platforms at the base. The most striking aspect of the area was the adaptation of the different species nesting here to the various nest sites available, Gentoos on the hillocks by the sandy beaches, Macaroni Penguins ranging in a vast colony above the rocky beaches with their colony rising to about 4,000 ft. above the sea. On the flat tops of the tussock cliffs were the giant petrels *Macronectes* sp. in loose colonies positioned to take advantage of the cliff edges to get their bulky bodies airborne, whilst on the sheer rock faces the Cape Pigeons *Daption capensis* nested on narrow ledges. On the broader rock ledges we found the Blue-eyed Shags. They occur in colonies of about 10 nests and raise anything from one to three chicks in large nests built of tussock grass and stones held together with guano. When approached the noble looking adult with its blue eye-ring and gold wattle above its bill will spread its wings protectively over the chicks. I found it one of the most fascinating birds on the island.

The LMSA chicks took up a lot of our time as we weighed them in a plastic shopping bag and measured their wing development. Carrying this out with the nests widely dispersed amongst tussock was tiring work. By and large, the albatrosses would accept this weekly intrusion into their otherwise peaceful life. The small downy grey bundles grow until they are almost the size of adults and eagerly eat the orange krill their parents regurgitate down their throats. It is a hazardous business weighing them just after feeding as they in turn will re-produce their stomach contents over the ornithologist, adding spice to the only pair of trousers you have on the island, and a new twist to your relationship with your tent partner.

An interesting observation was the loss of two of our albatross chicks from interaction with the Macaroni Penguins nesting in close proximity. The Macaroni is one of the species of the genus *Eudyptes* or crested penguins, which are smaller than the Gentoos, but their spectacular yellow head plumage makes them colourful and photogenic. They nest up steep tussock cliffs which they climb adroitly with their hooked feet and strong beaks, the colonies run to several thousands and the total island population is in excess of five millions. After producing the chicks the colony seemed to expand with the presence of moulting adults and it was these which surrounded some albatross chicks and drove them from their nests, the carcass of one being found below the nest.

By night Calf Head is noisy with the activity of the White-chinned Petrels *Procellaria aequinoctialis*. These large gull-sized birds nest underground in chambers excavated with their large white bills. Interestingly, none of the birds observed had the white chin which is generally a characteristic of this species. As dusk fell the sky around the headland became alive with many birds returning from the sea. They wheeled silently around the sky until darkness fell and then begins a cacophony of sound from the nest burrows as the chicks call out with a chirping call, that has given

them their nickname of shoemaker; only then will the adults land on the small earth platform in front of the burrow.

Between our weekly trips to Calf Head we photographed and recorded nest sites, and spent a week at the colony of King Penguins at St. Andrew's Bay. It was here that Cindy Buxton and Annie Pryce camped and made some superb films of this colony. We spent several days watching the nesting activities of this spectacular penguin. As breeding commences at any time throughout the Antarctic summer, there is always a wide variety of breeding activity underway in a large colony. In the centre we saw chicks being fed by adults while round the edges courtship and pair formation was still taking place. We sat for several hours waiting to photograph a sequence of copulation, so many attempts being unsuccessful as the rest of the birds take immediate objection to any activities by star-crossed lovers! The colony at St. Andrew's Bay is almost as big as that at Gold Harbour, and again is surrounded by a dependant collection of predatory skuas and sheathbills.

DEPARTURE

As the expedition drew towards the end, the weather started to get noticeably worse with more snow and wind than before. It became a mad dash to complete all the work that was required, and then in the final few days to pack up our home of the last three months. H.M.S. *Endurance* arrived in Royal Bay on 15 March and in two hard hours we had embarked and the great experience was over, well almost.

H.M.S. *Endurance* arrived back in the Falklands and was almost immediately returned to South Georgia to deal with a small diplomatic incident caused by some Argentinians landing. We thought it a minor inconvenience at the time and took several more days on the island as a chance to carry out some more bird-watching. It was relaxed and enjoyable with no need to record and count all the time.

Eventually we flew on to Buenos Aires and from there home via Rio as the South Atlantic was tumbling into an event which has shaken the entire country. In retrospect there are many and mixed feelings of the whole venture. It was hard physically, with sometimes atrocious weather, but the scenery and the birds were incomparable. There is still a vast amount of work to be done on the birds of South Georgia and the rest of the Antarctic, and the Service Expedition is ideally placed to contribute to this. Our fitness and mobility are great assets, and the continuing presence of servicemen in this area can produce results of international importance. Already our ships are producing sea-watch statistics while patrolling off the Falklands.

Lastly, Britain as a whole must make every effort to protect not only the rights of man in the South Atlantic, but prevent man

destroying the rights of those animals that have spent thousands of years fighting the wind and cold just to breed and feed.

Lieutenant M. D. R. Kelly, R.N., 12 Valency Close, Northwood, Middlesex.

Female Magnificent Frigate-bird

NOTES ON SEABIRD REPORTS RECEIVED 1981-82

By Stephen E. Chapman

Once again, this year's notes follow the format established in recent volumes and provide a brief summary and highlights of observations reported by seagoing members on Seabird Report, Seabird Census and Bird Examined in the Hand report sheets. This summary is based on reports received in the period from October 1981 to year end 1982. The total number of individual observers submitting reports remains the same this year as last at 21. It is a pleasure to mention reports from two new observers, Captain D. M. McPhail on M.V. *ACT 7* and L.R.O. N. W. Cottle on H.M.S. *Broadsword*, and to thank our regular contributors for continuing to take the time and trouble to note birds seen and then to sit down and systematically fill out the report sheets. It is only by amassing data in this way that our knowledge and understanding of distributions can be extended.

Highlights this year include reports from previously little reported areas in the South Atlantic, especially reports from R/O. W. F. Curtis, L.R.O. N. W. Cottle and Captain M. G. T. Harris. To get the maximum use from all these, it is the intention at some time in the future to carry out a special analysis of records from the South Atlantic and Falklands. Any additional contributions would therefore be particularly welcomed. Also worthy of special mention are the extensive and detailed reports from R/O. W. Weitkowitz of multiple voyages in the western Pacific between Hong Kong and Japan, and New Zealand and eastern Australia.

Report forms considered in this summary were received from the following observers, who are thereafter identified by their initials:

Mr R. C. L. Aran—O.W.S. *Admiral Fitzroy*. 3 passages Greenock to Ocean Station Lima and return. September 1981-January 1982 (3 page report). M.V. *Starella*. Passage Fleetwood to Ocean Station Lima (1 page report).

Captain P. W. G. Chilman—S.S. *Limatula*. Cape Town, Mena Al Fahal, Singapore, Mena and return to Singapore. August-December 1979 (7 census sheets). Rotterdam, Halul, Singapore, Mena Al Fahal and return to Rotterdam. April-August 1980 (12 census sheets).

L.R.O. N. W. Cottle—H.M.S. *Broadsword*. Ascension Island-Falkland Islands. April-June 1982 (2 page report). Plymouth, Bermuda, West Indies, U.S. east coast, Canada and return to Plymouth. September-December 1982 (5 page report).

Radio Officer W. F. Curtis—R.F.A. *Fort Grange*. U.K., Charleston, Norfolk, Spain, via north of Scotland. July-September 1981 (9 page report). M.V. *British Test*. U.K., Ascension and Falklands area. April-June 1982 (16 page report).

2nd Officer P. C. Dyer—M.V. *Stratheden*. P.G. to East Africa. May 1982 (1 page report). Red Sea to U.S.A. and return. June-July 1982 (3 page report).

Radio Officer M. G. Finn—M.V. *Nosira Sharon*. U.K. to Savannah/Miami, three return voyages. December 1981-April 1982 (8 page report).

Lieutenant-Commander M. French, R.N.—H.M.S. *Herald*. U.K. Oman, East Africa, U.K. November 1981-February 1982 (1 page report).

Midshipman T. B. Holt—T.V. *State of Maine*. U.S. east coast. May-June 1980 (1 page report).

Captain M. G. T. Harris, R.N.—H.M.S. *Cardiff*. Falklands, Ascension Island, Portsmouth. July 1982 (14 page report).

Chief Officer R. H. Johnston—M.V. *United Drive*. Vancouver-Hsinkang. September 1982 (2 page report).

Chief Officer C. R. Lisher—M.V. *Landguard Point*. Shimizu to Balboa. January-February 1982 (3 page report).

Third Officer A. R. Louch—R.R.S. *Shackleton*. Barry, Gibraltar and south of Canary Islands. October-November 1981 (8 page report). R.R.S. *Challenger*. Hebrides, Malin and Rockall. August-September 1982 (10 page report).

Captain D. M. McPhail—M.V. *Act 7*. Port Chalmers-Balboa. June 1982 (3 page report).

C.P.O. D. S. Preston—H.M.N.Z.S. *Canterbury*. Hauraki Gulf area, Auckland, Sydney. August-February 1981 (9 page report). Hauraki Gulf area, Auckland, Sydney. January-February 1982 (13 page report). Sydney, Suva, Hawaii. March-April 1982 (11 page report).

Mrs C. Roberts—M.V. *Newbeach*. Goa to Gulf of Kutch and return. November-December 1981 (2 page report). Goa, Aqaba, Karachi, Trincomalee. January-February 1982 (5 page report).

Captain K. Salwegter—M.V. *Amstelvoorn*. New York, Panama, Inchon, Singapore, Suez. November 1981-January 1982 (6 page report). Syros, Algeciras, Dry Tortugas, Panama, Keelung. July-November 1982 (8 page report).

Captain D. M. Simpson—M.V. *Pacific Claymore*. Singapore to Trengganu offshore oilfield. February-April 1982 (2 census reports). M.V. *Pacific Dagger*. Singapore to Trengganu offshore oilfield. July-August 1982 (1 census report). M.V. *Pacific Prospector*. Singapore to Trengganu offshore oilfield. September-October 1982 (2 census reports).

Captain J. W. Waldie—M.V. *Berkshire*. Dubai, Richards Bay, Suez, Gibraltar, Bermuda, Newport News, Palermo. November 1981-February 1982 (4 page report).

Second Officer M. G. Weir—M.V. *D. C. Coleman*. Sepetia Bay, Cape Town, Philippines. July-August 1980 (2 page report. Richards Bay to Denmark. October 1980 (2 page report). M.V. *Fort Nelson*. Singapore, Australia, Aden. March-May 1981 (3 page report).

Captain R. R. Will—M.V. *King William*. Mississippi to Taiwan via Panama. February-March 1982 (1 page report). M.V. *Balmoral Universal*. Mediterranean and Red Sea. October-November 1982 (2 page report).

Radio Officer W. Weitkowitz—M.V. *Fuerte Ventura*. Dunkirk, Richards Bay and return via Dakar. July-August 1981 (13 page report). M.V. *Mosel*. Hong Kong, Brisbane, New Zealand, Tokyo, Pusan, Hong Kong, New Zealand, and return to Hong Kong. April-July 1982 (26 page report). Hong Kong, Brisbane, New Zealand coastal waters to Hitachi. September-November 1982 (16 page report).

NOTES ON SPECIES

ALBATROSSES *DIOMEDEIDAE*

Wandering Albatross *Diomedea exulans*

On passage from Ras Ju'aymah to Rotterdam PWGC sighted birds into the tropics in the South Atlantic as follows: One at 21°33′S 7°15′E on 9 Aug 80, then 12 at 18°19′S 4°30′E on 10 Aug, 3 at 15°16′S 1°50′E on 11 Aug and 2 at 12°05′S 0°37′W next day. On a similar route MGW reported 2 at 20°00′S 6°00′E on 8 Oct 80 and one at 12°00′S on the Greenwich meridian on 9 Oct 80, while WW saw an immature at 19°51′S 5°31′E on 20 Jul 81 and another at 14°43′S 1°36′E during the return passage northward on 7 Aug.

Black-footed Albatross *Diomedea nigripes*

Daily sightings of small numbers from 22°58′N 164°05′W to 26°34′N 164°50′E, 3 Dec-9 Dec 81, reported by KS on a Pacific crossing from Balboa to Inchon. Similarly, RRW noted up to four following from 21°09′N 160°45′W to 26°00′N 158°56′E during March 1982.

FULMARS, PRIONS, PETRELS, SHEARWATERS *PROCELLARIIDAE*

Cape Pigeon *Daption capensis*

Six at 21°33'S 7°15′E on 9 Aug 80 and four next day at 18°19′S 4°30′E (PWGC). Two at 23°55′S 39°00′W on 25 Jul 80 (MGW). Large concentrations of several thousands off the Cape on 2 Aug 81 (WW). A few seen at 24°55′S 167°46′E on 7 Oct 82 (WW).

Fulmar *Fulmarus glacialis*

Four sighted close to several Hump-backed Whales in the Bay of Biscay, at 45°58′N 7°26′W, on 21 Aug 81 by WW who remarked that they were unusually far south for the summer and suggests they may have been moving in company with the whales. WFC reported a concentration estimated at 4,000 following two trawlers at 65°16′N 00°34′W on 3 Sept 81.

White-chinned Petrel *Procellaria aequinoctialis*

Several with other petrels more typical of higher latitudes reported at 16°09′S 2°36′E on 19 Jul 81, sea temperature 18°C (WW).

White-faced Shearwater *Puffinus leucomelas*

P. Meeth reported four in the Indian Ocean at 6°06′N 79°09′E on 18 Dec 79, and 95 in the South China Sea at 10°21′N 109°46′E on 1 Jan 80 and then steaming eastwards, small numbers daily to 23°33′N 124°24′E on 7 Jan. KS sighted 5 at 31°38′N 128°25′E on 15 Dec 81.

Cory's Shearwater *Calonectris diomedea*

One on board at 36°N 13°36′W on 12 Apr 82 (MGF). Hundreds seen all day on the sea and in flight, noon position 37°N 12°E on 13 Nov 82 (MF).

Great Shearwater *Puffinus gravis*

Up to 90 per hour on the Nantucket Shoals from end May to 13 June 80 (ATH). At least 100 in 30 minutes at 39°34′N 73°82′W on 10 Nov 81 (KS).

Grey-backed Shearwater *Puffinus bulleri*

WW saw many in the Tasman Sea and New Zealand coastal waters in May and Sep 82, and small groups at 28°13′N 146°18′E on 5 Jun 82. DSP also saw it in New Zealand coastal waters in Oct 81 and Jan 82. KS reported them at 13°02′N 117°10′W but there may have been some confusion with pale phase *P. pacificus* known to occur in that area in winter.

Sooty Shearwater *Puffinus griseus*

Up to 50 from end May to mid-June 80 on the Nantucket Shoals (ATH). One at 55°42′N 8°24′W on 18 Sep 81 (RCLA). 1,000-2,000 in two hours at 54°21′N 166°10′W (Unimak Passage) on 8 Sep 82 (RHJ).

Short-tailed Shearwater *Puffinus tenuirostris*

In a two-hour watch passing through the Unimak Passage, RHJ estimated 2-3,000 at 54°N 166°W on 8 Sep 82.

Manx Shearwater *Puffinus puffinus*

On a northerly crossing and exercises in the Atlantic in late August 81, WFC recorded the following counts:

Date	*Number in one-hour watch 12-1300*	*Number in one-hour watch 17-1800*	*Noon position*	
			Lat. N	*Long. W*
27 Aug	Nil	Nil	53°	34°
28	3	9	54	28
29	18	27	58	22
30	2	53	54	14
31	c.130	c.180	61	12
1 Sep	c.190	v/l stopped	61	12
5	6	—	62	0
6	—	85	57	7
7	4	—	56	5

Little Shearwater *Puffinus assimilis*

At least 50 reported at 35°15'S 175°33'E on 18 Aug 81, many at 36°37′S 175°10′E on 6 Oct 81, and at least 500 at 36°47′S 176°46′E on 16 Jan 82 by DSP; however, it is more likely that in these numbers he was seeing Fluttering Shearwaters *Puffinus gavia*. One single reported, without supporting notes, at 46°09′N 8°05′W on 11 Sep 81 (WFC).

Audubon's Shearwater *Puffinus lherminieri*

A long series of summer sightings in the western Atlantic by WFC is interesting, particularly a total of c.250 at 37°58′N 67°34′W on 25 Jul 81. Unfortunately, the observation lacks details of whether the shearwaters were in a group, feeding, etc.. Next month 11 were reported, by the same observer, 18 miles SW of Cape Hatteras on 14 Aug, then daily sightings of small numbers were reported from 38°10′N 65°53′W (22 Aug) to 48°30′N 39°10′W (26 Aug).

Black-capped Petrel *Pterodroma hasitata*

On two of the occasions that WFC sighted Audubon's Shearwater (*q.v.*) he also saw this species as follows: 3 at 37°58′N 67°34′W on 25 Jul 81, one at 35°35′N 74°40′W next day, one 18 miles SW of C. Hatteras on 14 Aug and another single on 21 Aug 18 miles E of C. Hatteras. The birds appeared larger than Audubon's Shearwater, gliding and banking higher in flight than that species, and had strikingly white underparts. The white forehead and nape also gave an impression, at c.$\frac{1}{4}$ mile, of a white head with a darkish patch around the eye almost as *Pterodroma mollis*. The rump and upper tail were vividly white, with the tip of the tail difficult to detect against the sea but obviously dark. The white rump was by far the most striking feature, reminiscent of a Green Sandpiper *Tringa ochropus* at long range.

Soft-plumaged Petrel *Pterodroma mollis*

MGTH saw 15 at 44°30′S 43°30′W on 9 Jul 82. On a passage to the Cape several single birds were seen with a noon position of 16°09′S 2°36′E, on 19 Jul 81 (WW), and again next day at 19°51′S 5°31′E, then daily to the Cape.

Jouanin's Petrel *Bulweria fallax*

One seen at 15°58′N 57°05′E on 25 Aug 79 (PWGC), and other singles at 16°05′N 57°48′E on 20 May 80 and 22°05′N 60°21′E on 21 May (PWGC).

Bulwer's Petrel *Bulweria bulwerii*

Several at 25°55′N 122°10′E on 20 Jun 82, one at 12°19′N 155°49′E on 3 Aug 82 and several at 25°54′N 121°23′E on 27 Aug (WW).

STORM-PETRELS *HYDROBATIDAE*

White-faced Storm-petrel *Pelagodroma marina*

In the North Atlantic ARL gives an incomplete description of two birds seen at 21°22′N 18°26′W on 30 Oct 81. WW saw two in the Tasman Sea at 29°51′S 171°09′E on 6 Oct 82.

White-bellied Storm-petrel *Fregetta grallaria*

One examined in the hand on board at 28°22′S 132°04′W on 15 Jun 82 (DMMcP). One, which might alternatively have been *F. tropica*, seen at 49°57′S 44°46′W on 29 Apr 82 (NWC).

Black-bellied Storm-petrel *Fregetta tropica*

WFC saw one in its winter quarters near where it was first collected by John Gould, about 50 miles off Ascension. At the time he was standing on the tank deck only 20 feet above the sea and saw the white underparts with a distinctive dark line through the centre of the abdomen.

Madeiran Storm-petrel *Oceanodroma castro*

Recorded daily on passage from the U.K. to Ascension Island from the sub-tropics at 32°N10°W on 19 Apr 82 to the day before arrival at Ascension on 27 Apr with a peak of c.160 in a day at 18°N 18°W on 22 Apr (WFC). He also saw Wilson's Storm-petrel *Oceanites oceanicus* on this passage.

Leach's Storm-petrel *Oceanodroma leucorhoa*

350 in a one-hour watch at 41°N 52°W on 24 Aug 81 and 180 in a similar period at 44°N 48°W next day (WFC). Birds examined in the hand were reported as follows:

Date	*Position*	*Sea temp. °C*	*Observer/Comments*
24 Oct 81	00°12′N 10°00′W	27	PWGC. Length 201mm. Wing 470mm. Renewing 4th and 7th primaries.
30 Aug 82	57°48′N 8°34′W	13.5	ARL. Forked tail.
17 Sep 82	49°23′N 11°14′W	17.2	ARL. Length 207mm. Wing 404mm.

Swinhoe's Storm-petrel *Oceanodroma monorhis*

A flock of about 30 at the Trengganu oilfield (4°39′W 103°31′E) on 21 Sep 82. DMS described as blackish-brown storm-petrels with distinctive forked tail and pale band on the wing coverts.

Tristram's Storm-petrel *Oceanodroma tristrami*

On a passage from New Zealand to Japan WW saw a few at 23°49′N 149°07′E on 4 Jun 82, small groups following the ship all day at 28°N 146°E on 5 Jun and again next day at 32°42′N 143°15′E. He reports that the shafts of the primaries appeared dark on all birds seen closely, and therefore confusion with *O. matsudairae* was considered unlikely. Another single bird was seen at 17°10′N 153°06′E on 4 Aug 82 (WW).

Matsudaira's Storm-petrel *Oceanodroma matsudairae*

In the tropical western Indian Ocean PWGC noted at least 3 following at 16°35′S 42°33′E on 18 Aug 79 and 6 next day at 11°45′S 44°53′E. These sightings are supported by very full descriptive notes. During the International Indian Ocean Expedition in the early 1960's the occurrence of *O. matsudairae* was proven in the eastern part of the Ocean, and a large number of sight records were noted of birds tentatively identified as belonging to this species by Bailey, Pocklington and Willis (*Ibis* 110:27-34).

GANNETS, BOOBIES AND FRIGATE-BIRDS *SULIDAE* and *FREGATIDAE*

MGTH reported that he started seeing many flights of Masked Boobies *Sula dactylatra* on rounding the northern point of Ascension, on 17 Jul 82 and found the top of Bosun Bird Island speckled with boobies and frigate-birds giving a pepper-and-salt effect over the surface of the pale coloured rock. Numbers were estimated at several thousands. Many Brown Boobies *Sula leucogaster* had 'nests' on low ledges near the water, in contrast to the former species. Several of their chicks were almost full grown, but most were large, white and fluffy. Some of the adults frequented the Ascension Island anchorage on the west of the island, and came very close to the ship. For an interesting description of these islands and their birds see account by Captain P. J. Rose, M.N., in 1965, *Sea Swallow* 23:25-28.

PHALAROPES *PHALAROPODIDAE*

Observers are frequently unclear as to which phalaropes they are seeing. These records are, however, still of value and may be summarised as follows. 25 at 40 miles W of Aden on 31 Jan 82, at least 127 at 120 miles SE of Salalah on 2 Feb and at least 180 in one hour 15 miles SE of the Kuria Muria Islands next day (CR). Also in the Indian Ocean JWW saw 12 at 0°30′N 50°50′E on 9 Nov 81, and KS reported small flocks at 23°42′N 59°34′E on 16 Jan and again at 15°27′N 52°17′E on 26 Jan 82. Elsewhere, KS saw numerous small flocks at 12°04′N 97°18′W on 22 Nov 81.

Grey Phalarope *Phalaropus fulicarius*

In the tropical Atlantic PWGC recorded 13 at 18°32′N 18°18′W on 23 Apr 80, and WFC saw 6 at 22°N 18°W on 21 Apr 82 and 20 at 18°N 18°W next day.

Red-necked Phalarope *Phalaropus lobatus*

Small flocks totalling 58 in an eighty minute watch at 22°12′N 60°27′E in the Arabian Sea on 3 Sep 79 (PWGC). In the Celebes Sea, WW saw small groups at 5°36′N 123°02′E on 3 Sep 82 and again at 1°02′N 125°40′E the following day.

SKUAS *STERCORARIIDAE*

Pomarine Skua *Stercorarius pomarinus*

On a passage from the U.K. to Ascension WFC first met nine birds at 28°N 14°W on 20 Apr 82 and then saw them daily to 6°30′N 17°06′W on 24 Apr. WW also saw a few in the China Sea at 19°54′N 116°22′E on 14 Apr 82.

Arctic Skua *Stercorarius parasiticus*

In the western Pacific WW recorded a few at 25°55′S 167°46′E on 7 Oct and also at 19°40′S 162°32′E on 9 Oct 82.

Long-tailed Skua *Stercorarius longicaudus*

During an August crossing of the North Atlantic WFC reported a group of 17 at 48°30′N 39°10′W on 26 Aug 81, one single at 52°31′N 34°27′W on 27 Aug and five at 53°43′N 27°57′W the next day.

GULLS *LARIDAE*

Herring Gull *Larus argentatus*

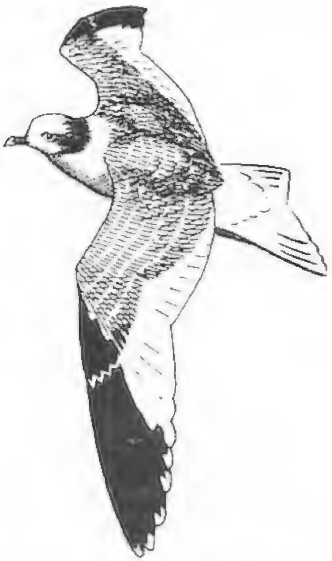
These birds occasionally turn up in mid-ocean during the winter months. For example, MGF recorded an adult at 33°54′N 57°54′W on 10 Dec 81, and JWW reported eight oil-stained birds landing on board at 36°45′N 59°00′W on 11 Jan 82, having previously encountered occasional birds further east on the 36°N parallel at 26°W, 32°W, 49°W and 53°W.

Silver Gull *Larus novaehollandiae*

At Port Phillip anchorage, Melbourne eighty of these common gulls caused trouble by raiding the ship's garbage and attracting the attention of the Quarantine Officers. MGW reports that the problem was quickly solved by rigging a scarecrow!

Sabine's Gull *Xema sabini*

WFC found these small gulls widely distributed across the North Atlantic as follows: 5 at 48°30′N 39°10′W on 26 Aug 81, 3 at 52°31′N 34°27′W next day, 1 at 39°02′N 10°00′W on 18 Sep 81, and 2 at 6°30′N 17°06′W on 24 Apr 82.



Sabine's Gull *drawn by* P. Harrison

Kittiwake *Rissa tridactyla*

On a slow winter passage from the Strait of Gibraltar to Bermuda, JWW saw small numbers of adults and immatures from 36°N 19°W on 28 Dec to 36°N 26°W on 31 Dec 81. Ones and twos were then recorded daily along the 36°N parallel from 42°W to 49°W with an isolated immature further west at 57°W on 10 Jan 82. During the return passage later the same month, similar numbers were seen daily along the 35°N parallel from 55°W on 31 Jan to 40°W on 3 Feb. Eight were seen at 30°N 31°W on 5 Feb as well as others further east. MGF also recorded one bird at 36°N 48°W on 21 Feb 82, while much nearer the coast ARL reported 12 at 36°28′N 9°51′W on 22 Oct 81 then 3 at 36°02′N 7°49′W the next day.

NWC watching a group of 40 following his frigate at 49°N 29°W on 30 Nov 82 noted one individual with unusual greenish-brown markings on the left underwing, flank and upperwing. the right wing was unmarked. One wonders if this bird had been purposely dyed as part of some research programme or had just got dirty?

TERNS AND NODDIES *STERNIDAE*

Royal Tern *Thalasseus maximus*

PCD saw one land on the hatch covers, off the east Florida coast on 20 Jun 82.

White Tern *Gygis alba*

Several pairs reported by MGTH flying around Bosun Bird Island during a visit on 17 Jul 82. The same observer also saw a pair, at an altitude of about 2,000 feet, near Green Mountain on Ascension.

AUKS *ALCIDAE*

Little Auk *Plautus alle*

In mid-North Atlantic NWC saw 6 at 48°N 42°W on 29 Nov 82.

Brunnich's Guillemot *Uria lomvia*

Fifty birds seen in two hours in the Unimak Passage at 54°N 166°W on 8 Sep 82 (RHJ).

Puffin *Fratercula arctica*

Two adults at 59°53′N 13°52′W on 30 Aug 81 (WFC). An immature was examined in the hand off St Kilda on 30 Aug 82 by ARL on board R.R.S. *Challenger*. Length measured 210 mm and wing 110 mm.

Horned Puffin *Fratercula corniculata*

Four birds per hour at 54°N 161°W on 8 Sep, and 2-3 per hour at 50°N 158°E on 13 Sep 82 (RHJ).

Tufted Puffin *Lunda cirrhata*

Variable numbers were reported by RHJ during a Sep 82 crossing from Vancouver to Hsinkang (China) via the Bering Sea as tabulated below:

Number in 2 hr watch 06-0800	*Number in 2 hr watch 16-1800*	*Date*	*Ship's position at 0600*
6	200	8 Sep	54°21′N 166°10′W
1	9	9	53°57′N 177°10′W
6	2	11	53°34′N 177°47′E
20	10	12	51°13′N 162°25′E
60	12	13	50°23′N 157°53′E

BIRDS ON PULAU DAMAR

The following notes have been extracted from a report of a brief landing on Pulau Damar submitted by Captain D. M. Simpson. Pulau Damar is the westernmost islet of the Amanbus group lying 90 miles off the mainland coast of the Malay Peninsula in the South China Sea (position 2°45′N 105°23′E). It is a steep barren rock 82 metres high, with water depths of 55 metres close around it. A little scanty vegetation exists near the top and the cliffs look white coloured due to guano deposits.

On 8 March 1982, Captain Simpson anchored the *Pacific Claymore* 3 cables SW of the rock, and with the assistance of an able-seaman made a landing by rubber boat and also circled the rock. The following four species were recorded during a one-hour stay. Others may have been present but they were not seen in flight.

Brown Noddy *Anous stolidus*. About 3,000 adult birds nesting all over the cliff faces from sea-level to the summit. Most of the nests inspected had a single downy nestling, and much courtship was seen, but time did not permit scaling the cliffs.

Bridled Tern *Sternus anaethetus* outnumbered at least 30 to 1 by the noddies and seemed to be nesting right amongst them, but eggs or young were not specifically identified.

Pacific Reef Egret *Egretta sacra*. A single wary individual seen on the rocks at sea-level. This was a grey phase bird with a yellow bill.

White-breasted Sea Eagle *Haliaetus leucogaster*. A pair apparently resident, and observed soaring over and landing on the uppermost rocks.

Captain Simpson cautions in his notes that in his experience immature Brown Noddies, lacking the whitish forehead and crown of the adult and having a longish tail, may easily be mistaken for a dark shearwater.

S. E. Chapman

LANDBIRDS FROM SHIPS AT SEA 1981-82

Analysis by Commander M. B. Casement, M.N.I., M.B.O.U., R.N.

The following reports of landbirds seen at sea were received during 1981-82. Extracts are shown in the appropriate sections, using the observer's initials.

Captain P. W. G. Chilman, M.N. (23 pages)
S.S. *Lepeta* 15 Jan-26 Feb, 28 Mar-9 Apr (see *Sea Swallow* 31:25-29) 27 Apr-16 May, 25-28 Aug 1979
S.S. *Limatula* 1-17 Sep, 21-28 Sep, 27 Oct-10 Dec 1979, 14 Apr-19 Jun 1980
S.S. *Limatula/Limopsis* 13 Jul-22 Dec 1980

Third Officer A. R. Louch, M.N. (11 pages)
R.R.S. *Shackleton* 7-23 Apr, 4-11 May, 15 Jun-5 Jul, 27 Jul, 19 Sep-1 Oct, 20 Oct-16 Nov 1981
R.R.S. *Challenger* 17-23 Aug, 8-29 Sep, 5-11 Oct 1982

Captain R. L. Westwater, M.N. (2 pages)
M.V. *Barranca* 22 Sep-15 Nov 1982

Chief Petty Officer C. A. R. Bailey, R.N. (2 pages)
H.M.S. *Sheffield* 14 Sep, 1 Oct 1981

Chief Petty Officer Q. A. S. Brotherton, M.N. (3 pages)
M.V. *La Hacienda* 9 May-4 Jul, 15-18 Aug 1981, 3 Sep 1982

Second Officer M. G. Weir, M.N. (2 pages)
M.V. *D. C. Coleman* 2-3 Sep, 22 Sep 1980

Radio Officer M. G. Finn, M.N.
M.V. *Nosira Sharon* 4-13 Dec 1981

Radio Officer W. Weitkowitz, German M.N. (4 pages)
S.S. *Fuerte Ventura* 19 Apr-19 Jul 1981
S.S. *Mosel* 7-25 Aug, 31 Aug-9 Sep, 11-19 Oct 1982

Captain K. Salwegter, Neth. M.N. (7 pages)
M.V. *Amstelvliet* 22 Apr-1 May 1981
M.V. *Amstelvoorn* 22 Jul-9 Aug, 15-29 Nov 1981, 8-16 Oct 1982

Captain R. R. Will, M.N. (3 pages)
M.V. *King George* 12-25 Apr 1981
M.V. *Balmoral Universal* 7-9 Oct, 10 Nov 1982

Mrs C. Roberts (7 pages)
M.V. *Corral* 14 Feb, 23 Mar-4 Apr 1981
M.V. *Newbeach* 26 Sep, 25 Nov-10 Dec, 1981, 6 Jan-26 Feb 1982

Lt.-Cdr M. French, R.N.
H.M.S. *Herald* 16 Nov 1981-1 Mar 1982

Mr R. C. L. Aran. (2 pages)
M.V. *Starella* (Weather ship) 1 Mar, 16 Sep 1982

Captain J. K. Currie, M.N.
M.V. *King Alfred* 27-28 Apr 1981

Third Officer P. Dryssen, Swedish M.N. (one page plus a letter)
M.S. *Snowstorm* 26 Oct 1980
M.V. *Snow Flake* 23 Apr 1982

Captain D. M. Simpson, M.N. (9 pages)
M.V. *Pacific Claymore* 22 Feb-14 Apr 1982
M.V. *Pacific Prospector* 26 Jun-7 Nov 1982

Engineer Officer S. J. Hingston, M.N. (18 pages)
M.V. *Swan Ocean* 14 Sep-30 Oct 1980
M.V. *British Enterprise II* 20 Jun-12 Oct 1981

A large number of forms relating to the North Sea were received from Mark Tasker and other members of the Seabirds at Sea Team — 1980 (17), 1981 (57), and 1982 (5). Unfortunately,

time and space does not permit me to do justice to them in these pages. Meanwhile, they have been retained by me until someone can suggest ways or offers to help with their analysis.

A total of 16 bird-examined-in-the-hand (BEH) forms were received during the period — three from ARL, one from DMS, four from PWGC, one from MF, two from Captain M. G. T. Harris, R.N., H.M.S. *Cardiff*, and five from LRO(G) N. W. Cottle, R.N., H.M.S. *Broadsword*.

Analysis has been carried out in the same way as in previous years (see *Sea Swallow* 30) but covers two years because I was not able to do so in 1982. Records of landbirds have also been extracted from some Sea Report Sheets, and numerous Meteorological Logs (indicated by MET) and from personal letters. In order that direct comparisons can be made with the tables in previous *Sea Swallows* the various sections cover the same sea areas as follows:

Section A	East Atlantic (East of 30°W), including Biscay and Iberlant.
Section B	North Sea, including English Channel, Skaggerak and White Sea.
Section C	West Atlantic (West of 30°W), and South Atlantic.
Section D	Gulf of Mexico and Caribbean.
Section E	Mediterranean, including Bosphorus.
Section F	Red Sea and Gulf of Aden.
Section G	Indian Ocean and Arabian Sea.
Section H	Persian Gulf and Gulf of Oman.
Section I	Pacific, China Sea, Yellow Sea and Philippine Sea.

SECTION A

EAST ATLANTIC (EAST OF 30°W), INCLUDING BISCAY AND IBERLANT

1979

On 15 Jan PWGC recorded Grey Heron *Ardea cinerea* in position 05°21'N 11°38'W (73'SW Monrovia), and on 26 Feb a male Black Redstart *Phoenicurus ochruros* 30'NNE Grand Canary (28°37'N 15°12'W).

On 11 May PWGC was 50'NNW Morocco (34°06'N 08°43'W) and recorded: Turtle Doves *Streptopelia turtur* (19 increasing to total 34). Pallid Swifts *Apus pallidus* (5). Swallow *Hirundo rustica*. Spanish Yellow Wagtail *Motacilla flava iberiae*. Whitethroat *Sylvia communis*. Woodchat Shrike *Lanius senator*. Spotted Flycatcher *Muscicapa striata*.

1980

On 21 Apr PWGC reported a female Kestrel *Falco tinnunculus* 21'S Grand Canary (27°23'N 15°30'W), and on 25 Apr a Curlew *Numenius arquata* 150'SW Bijouga Archipelago (08°53'N 17°23'W).

On 27 May a Snipe *Gallinago gallinago* was observed perched on containers on M.V. *Manchester Concorde* (MET) in mid-Atlantic (540'SE C. Farewell, 680'W Ireland — 55°46'N 29°55'W).

On 25 Jun a swift *Apus* sp. stunned itself and was kept overnight on board MV *British Test* (MET) in position 19°30'N 17°30'W (30'NW Mauretania).

On 23 Aug PWGC recorded a Great Spotted Cuckoo *Clamatus glandarius* 50'W Spanish Sahara (22°57'N 17°33'W).

On 5 Oct a possible Yellow-billed Egret *Egretta intergalea* came on board SS *Tantalus* (MET) 530'S C. Verde Is (9°35'N 24°43'W) and remained for 3 days.

On 6-7 Oct SS *Esso Caledonia* (MET) reported at least 25 hirundines, mostly Swallows, and several warblers on board in position 2°N 16°W (420'SW Liberia). Several Swallows died and one was ringed (No. A.805 380). This was sent to the British Museum (and found to have been ringed on 1 Sep 80 at Titchfield Haven, Fareham, Hants. — a distance of 5,600 km, direction 194° in only 40 days — MBC).

On 11 Oct the ship was in position 11°N 18°30′W, steaming north and three only remained. Numerous insects and butterflies including Peacock, Red Admiral and Tortoiseshell came on board on 12th (13°N 18°30′W).

On 3 Nov a falcon, possibly a Merlin *Falco columbarius* was found newly dead on board RRS *Bransfield* (MET) in position 20°N 30′W (290′SW W. Africa, 370′S C. Verde Is).

On passage from Fawley to the Persian Gulf (11 Nov-24 Dec) MV *Esso Northumberland* (MET) was accompanied by a flock of 40-50 Starlings *Sternus vulgaris* most of which joined off C. Finisterre. Food was left out by the crew, but most died and finally only 11 remained.

On 9 Dec MV *Wild Mallard* (MET) reported a Lapwing *Vanellus vanellus* circling the ship in the Bay of Biscay (44°31′N 8°53′W), and 16 Dec MV *King Richard* (MET) reported a single Canada Goose *Branta canadensis* 380′WNW C. Finisterre (44°N 17°W) which attempted to land on board.

On 22 Dec PWGC reported three Greenfinches *Carduelis chloris* on board 260′WSW C. St Vincent (35°N 13°30′W). The wind was NE/4.

1981

On 16 Feb MV *Achilles* (MET) recorded on board a White Wagtail *Motacilla alba* 100′N Madeira (34°30′N 18°20′W). Wind was NNE/6.

Highlights from a series of reports from ARL during the period 7 Apr-11 May, whilst operating in S. Irish Sea and West of Ireland, included:

a.m. 7 Apr 90′SW Milford Haven. Robins *Rubecula erithacus* (3), Goldcrest *Regulus regulus*, Willow Warbler *Phylloscopus trochilus*. Collared Dove *Streptopelia decaocto*. The wind was SE/3. Later, when 12′SW Mizzen Head, a Sandmartin *Riparia riparia* circled 10 mins and departed NW.

On 8 Apr when 20′SW Ireland (52°10′N 12°47′W) a female Blackcap *Sylvia atricapilla* and a Swallow were on board briefly before departing NE. Wind SW/4

On 9 Apr when 280′W Ireland (52°58′N 15°29′W) a Linnet *Acanthis cannabina* stayed one hour and departed E.

On 11 Apr a Redwing *Turdus iliacus* rested 6 hrs during continuous heavy rain 270′W Hebrides (57°26′N 12°15′W). It was seen to depart NW.

On 20 Apr a Redshank *Tringa totanus* circled 30 mins and departed E in position 57°27′N 11°5′W 200′W Hebrides.

On 23 Apr a flock of 30-40 Brent Geese *Branta bernicla* was seen flying N in position 58°55′N 10°14′W (200′NW Lewis). The visibility was good, with snow showers.

On 4 May a male Merlin arrived in an exhausted state 130′SW Mizzen Hd. (50°33′N 13°05′W). NW gales with winds up to 50kts had been experienced for the previous 48 hrs. It was last seen heading E.

Migrants on board, during heavy rain and wind N/5, on 7 May included a possible Grasshopper Warbler *Locustella naevia*, Meadow Pipits *Anthus pratensis* (3), Greenshank *Tringa nebularia*, Chiffchaff *P. collybita* and Turtle Dove. Several birds were seen feeding on small insects. (Position: 49°29′N 12°19′W - 210′SSW C. Clear.)

On 8 May two Wheatears *Oenanthe oenanthe* and two Swallows arrived in an exhausted state but recovered after feeding on flies.

On 10 May, whilst still in the same area, a Curlew *Numenius arquata* circled for 20 mins (visibility was poor, and easterly gales had persisted for the previous 24 hrs). On 11 May two Sandmartins rested for 4 hrs.

RRW recorded a Collared Dove which came on board on 12 Apr in position 47°N 14°W (320′NW C. Finisterre) and remained for 7 days heading west. It was last seen 400′E Bermuda (33°N 56°W) when it disappeared during a SSW gale.

WW recorded several Swallows on board on 26 Apr (11°44′N 18°W, 60′W

Senegal). Wind was N/1-2, and two stayed overnight. Several more were on board in an exhausted state next day (150'W Sierra Leone) and most probably died.

A Hoopoe *Upupa epops* was recorded by MV *Anco Sovereign* (MET) on 14 Aug in position 36°14'N 10°20'W (115'NW Morocco).

On 14 Sep CARB recorded a Turtle Dove 60'NW C. Ortegal (44°34'N 8°58'W). During the period 21-26 Sep ARL was operating in the Bristol Channel (Area 51°18'N 04°18'W) and noted Curlew (2), Meadow Pipit, House Martin *Delichon urbica*, Greenfinches (3) and several unidentified wagtails, warblers and finches.

On 24 Sep a Peregrine *F. peregrinus* was on board MV *Celtic Encounter* (MET) for 90 mins in position 43°53'N (30'NW C. Finisterre). It was seen to catch and eat a "sparrow".

On 27 Sep a probable Merlin rested on board MV *Herefordshire* (MET) in position 43°30'N 29°10'W (230'N Azores).

On 1 Oct CARB recorded a Goldcrest in position 49°N 11°W (180'SSW Ireland). The wind was NNW/5.

ARL recorded the following autumn migrants during the period 20 Oct-16 Nov:

Blackcap - one male on 20 Oct (44°32'N 8°43'W) on board 4 hrs, and on 27 Oct (4'SW Canary Is.)

Probable Melodious Warbler *Hippolais polyglotta* on 22 Oct (36°28'N 09°51'W - 60'SW C. St Vincent).

Yellowhammer *Emberiza citrinella* (F) on board 2 hrs on 23 Oct, also possible Corn Bunting *Emberiza calandra* (4), *flava* Wagtail (M), plus other unidentified passerines flying S (36°02'N 07°47'W, 65'S Spain; W. Straits of Gibraltar).

On 25 Oct, in similar area, he noted Skylark *Alauda arvensis* flying S, and also *flava* Wagtail and White Wagtail *M. alba*.

Swallows and House Martins were noted on 30 and 31 Oct 100'W Mauretania (wind NNE/3), and further Swallows on 2 Nov and 10 Nov (22°N 18°23'W).

On 13 Nov an unidentified Thrush (similar to Mistle Thrush *Turdus viscivorus*) with light pink legs was on board (25°40'N 16°30'W), and on 14 Nov a Black Redstart *Phoenicurus ochruros* (F) (position 28°20'N 15°09'W, 14 off Canary Is).

A probable Olivaceous Warbler *Hippolais pallida* was noted on 15 Nov (31°03'N 11°54'W - 110'W Morocca). Wind was NW/4.

On 16 Nov a Turtle Dove, Robin, White Wagtail and probable Chiffchaff were on board (33°54'N 08°28'W - 30' off Morocco).

On 4 Dec MGF recorded 12 Starlings settling on board in position 43°42'N 19°58'W (420'W C. Finisterre). Two only remained p.m., and one a.m. on 5th.

1982

On 15 Feb RCLA recorded a Dunlin *Calidris alpina* on board in position 56°40'N 20°05'W (370'NW Ireland). It was exhausted and died after 24 hrs. Wind was 160°/21kts. On 27 Apr in Weather Station *Lima* (550 S Iceland - 57°09'N 19°06'W) RCLA noted two Wheatears *O. oenanthe* on board.

On 11 Apr an unidentified falcon (possibly a Merlin) was on board SS *British Resolution* (MET), with prey in its talons, in position 2°55'N 12°50'W (240'W Liberian coast), and 13-15 Apr a female Merlin was aboard MV *Erskine Bridge* (MET) in position 44°11'N 19°01'W (600'SW Ireland, 450'W C. Finisterre). The wind for the preceding 48 hrs had been NE. Whilst on board for 2 days it was seen to feed on 5 storm-petrels and another unidentified small bird. It was seen to depart close north of Azores (see photograph, page 27).

On 2 Sep QASB recorded a Kestrel *F. tinnunculus* which came on board in the English Channel (30'S Devon) and remained overnight.

Female Merlin *Falco columabrius* on board M.V. *Erskine Bridge* with Leach's Storm-petrel *Oceanodroma leucorhoa*, north-east of Azores. April 1982
Photo: Radio Officer B. Christie

Highlights from a series of reports from ARL operating west of UK during the period 17 Aug-29 Sep include:

A female Wheatear on 12 Sep 150'SW Mizzen Hd (49°41'N 13°08'W), and another on 16 Sep 200'SW Ireland (49°09'N 11°17'W). On 14 Sep in the same area was a probable Whinchat *Saxicola rubetra* and Willow Warbler *P. trochilus*. A Turnstone *Arenaria interpres* was on board 12 Sep.

On 18 Sep, when 100'SW Scilly Isles (50°N 08°W), ARL noted Meadow Pipits (2), Garden Warbler *Sylvia borin*, Whitethroat *Sylvia communis*, Turtle Dove, Spotted Flycatcher *Muscicapa striata*, Swallow, Pied Wagtail, Kestrel (Adult F), and Sandmartin. At 2300 the same evening at least 25 Wheatears suddenly appeared in all parts of the ship - under winches and in lab. spaces, etc.

On 29 Sep an adult Merlin (F) came aboard in a very bedraggled state (S/SE gales for the past 4 days) in position 59°39'N 06°05'W.

On 2 Nov MV *D. C. Coleman* (MET) recorded six Cranes *Grus grus* which arrived from NW and landed on board. After 30 mins they flew off heading SW. One was seen to be ringed. Position was 46°36'N 7°18'W (140'SW Ushant).

SECTION B

NORTH SEA, ENGLISH CHANNEL, SKAGGERAK AND WHITE SEA

1980

On 31 Aug PWGC caught and examined (BEH) a Marsh Warbler *Acrocephalus palustris* in position 50°N 08°48'W (12'SE Prawle Pt).

During periods in Sep and Oct SJH was operating in the area 58°22'N 00°04'E (74'NE Rathray Hd) and recorded the following:

On 4 Sep two Firecrests *Regulus ignicapillus* arrived from N being mobbed by gulls, and departed S.

Single Meadow-pipits *Anthus pratensis* on 4 Sep and 6 Sep.

On 6 Sep a Pied Wagtail *Motacilla alba* and a male Kestrel *Falco tinnunculus*.

On 21 Oct, in overcast conditions, two Blackbirds *Turdus merula*, and two Redwings *Turdus iliacus*. A Woodcock *Scolopax rusticola* flew past low heading N.

Three Starlings *Sternus vulgaris* arrived from NE in a very bedraggled state on 23 Oct, a single on 27 Oct and eight on 30 Oct.

A Short-eared Owl *Asio flammeus* was on board all day on 28 Oct, being mobbed by gulls.

On 29 Sep SS *Serenia* (MET) recorded a juv Peregrine *F. peregrinus* in position 60°24'N 02°32'W (close west of Sullom Voe, Shetland) which arrived in a strong SW gale and perched on an aerial.

1981

On 5 Mar MV *Clione* (MET) reported a group of about 100 Mute Swans *Cygnus olor* in position 52°36'N 03°36'E (40'W Netherlands) flying E in V-formation at about 400 feet.

On 14 May MV *Baltic Eagle* (MET) recorded a Hobby *F. subbuteo* which settled on the bridge wing in position 56°17'N 04°42'E (55'W Denmark), and on 21 May an Osprey *Pandion haliaetus* gliding overhead, the ship in position 56°15'N 04°35'E (60'W Denmark).

SJH recorded the following species from his support ship *British Enterprise Two* in the Leman Gas Field in position 53°03'N 02°17'E (29'NE coast of Norfolk) during the period 20 Jun-2 Sep:

Oystercatcher *Haematopus ostralegus* 9 Aug (5 flying N), 14 Aug (5 heading NW, low).

Golden Plover *Pluvialis apricaria* 9 Aug (5 flying low N).

Lapwing *Vanellus vanellus* almost daily in small numbers in June, including a group of 22 on 24th arrived from NE heading SW. One exhausted bird settled on board.

Purple Sandpiper *Calidris maritima* 8 Aug one (from SW), 9 Aug one (from S) in summer plumage circled.

Dunlin *Pluvialis alpina* 9 Aug (one adult in summer plumage from S, departed N, and one juv), 26 Aug (one drinking from pool of fresh water), 30 Aug (one feeding on shrimps - see *Sea Swallow* 31:63-64).

Curlew Sandpiper *Calidris ferruginea* 9 Aug on board 15 mins, dep. N.

Green Sandpiper *Tringa ochropus* 8 Aug (one flying N low).

Stock Dove *Columba aenas*. Two on 24 Jun.

Collared Dove *Streptopelia decaocto*. One on 3 Jul.

Swift *Apus apus*. One on 9 Jul.

Swallow *Hirundo rustica*. One circled on 23 Aug, two on board 31 Aug.

Yellow Wagtail *Motacilla flava*. One juv feeding on shrimps 2 Sep (see *Sea Swallow* 31: 63-4).

Warbler *A. scirpaceus* on 12 Aug.

Garden Warbler *Sylvia borin*. One on 2 Sep.

Whitethroat *Sylvia communis*. One male on 30 Aug.

Willow Warbler/Chiffchaff *Phylloscopus trochilus/collybita* 8 Aug (12), 14 Aug (1), 24 Aug (1), 27 Aug (1) 29 Aug (1), 1 Sep (1), 2 Sep (2-3).

Pied Flycatcher *Ficedula hypoleuca* 8 Aug (3 arrived singly from SW), 9 Aug (1 catching flies), 28 Aug (1 juv F), and 2 Sep (1 juv F).

Spotted Flycatcher *Muscicapa striata* 24 Jun (1), 28 Aug (1), and 31 Aug (1).

Whinchat *Saxicola rubetra* 8 Aug (1 juv), 9 Aug (1 juv + 1 dead adult), 30 Aug (3), 1 Sep (1) - found dead on 2 Sep.

Wheatear *Oenanthe oenanthe*. One adult catching insects on 8 Aug, 29 Aug (1), 2 Sep (1).

Redstart *Phoenicurus phoenicurus* 29 Aug (2 juv M), 30 Aug (1 adult F), 31 Aug (1 adult F feeding on flies), 2 Sep (3 - juv M, adult M, adult F).

Blackbird *Turdus merula*. One on 24 Jun.

During the period 15-20 Jun, ARL recorded two Starlings and a Swallow in position 55°N 01°22′E (85′E Scarborough), and on 29 Jun a Mistle Thrush *Turdus viscivorus* in position 54°46′N 00°E (45′E Yorkshire coast).

On 5 Jul ARL saw a single Swift flying low over the waves heading S in position 54°28′N 02°07′E (Dogger Bank). The visibility was poor, with fog patches. On 27 Jul ARL saw a Dunlin flying very low SW when 75′E Orkneys (59°N 00°10′E).

On 18 Aug QASB saw a Heron *Ardea cinerea* in the Dover Straits flying low W.

On 18 Aug MV *Solent Bank* (MET) was in the White Sea off Archangel (the River Drina fairway buoy) when a Great Spotted Woodpecker *Dendrocopus major* settled on the rigging. It attempted to peck the derrick wires before deciding that they were made of tougher material than Russian trees and flew off.

On 18 Aug MV *Shetland Service* (MET) became host to a female Merlin *Falco columbarius* which arrived when near Auk oil platform, and remained for two days before disappearing after a storm on 20th.

On 30 Sep ARL reported one male and one female Wheatear and two Swallows briefly on board in position 50°20′N 00°W (25′ S Isle of Wight).

SJH was again operating in the gas fields off the coast of Norfolk during the period 2-12 Oct and observed the following species:

2 Oct. Leman Gas Field (29′NE Norfolk). Lapwing (39), Swallow (2) and 27 unidentified thrushes *Turdus* sp. heading NW. The wind was S force 8 with 7/8 cloud and good visibility.

4 Oct. Leman Gas Field. Meadow Pipit (3), Song Thrush *T. philomelos* (2), Wheatear (2), Chiffchaff *Phylloscopus collybita*, and a male Black Redstart *Phoenicurus ochruros*. Cloud cover was 6/8 and wind NWN/3-4.

5 Oct. Indefatigable Gas Field (56°19′N 02°35′E, 47′NE Norfolk). Meadow Pipit (6), Redstart (6), Wood Warbler *Phylloscopus sibilatrix* (1), Willow Warbler *P. trochilus* (2), Chiffchaff (1), Goldcrest *Regulus regulus* (8), Blackcap *Sylvia atricapilla* (3-4), Garden Warbler (1), Chaffinch *Fringilla coelebs* (1), Redwing (12), Fieldfare *Turdus pilaris* (5), and Blackbird (1). Wind was NE/2 backing NNW/3. 6/8 cloud becoming 8/8 p.m.. Visibility excellent.

6 Oct. Indefatigable Gas Field. Lapwing (2), Meadow Pipit (17), Skylark *Alauda arvensis* (1), Redwing (22), Blackbird (2), Chaffinch (1), and Snow Bunting *Plectrophenax nivalis*. Wind was SSW/3 backing to SSE/4-5. Cloud 5/8 becoming overcast.

7 Oct. With WSW gale force 10 increasing to force 11 several Meadow Pipits seen tumbled by wind and spray and fall into the sea.

12 Oct. On passage River Humber to Indefatigable Gas Field. Purple Sandpiper *Calidris maritima* (3), Redwing (1), and Skylark (1) were the only species seen.

On 6 Jan Sarah Wanless of the NCC Seabirds at Sea Team recorded Starling (3), Mallard *Anas platyrhyncos* (2), Teal *Anas crecca* (13), and Great Crested Grebe *Podiceps cristatus* in the Straits of Dover.

During the period 7 Aug-6 Oct MV *Shetland Service* (MET) was operating near N. Auk A platform and noted:

Oystercatcher on 7 Aug (2), Lapwing 3 Oct (50), Golden Plover 7 Aug (1), a Sandpiper sp., and two Dunlin on 3 Oct. Two Dunlin in winter plumage were later found dead. A female Merlin was noted on 26 Sep, and another falcon, probably the same species, on 1 and 2 Oct. A "small falcon" was recorded also on 16 Sep, 26 Sep, 2 Oct and 4 Oct. A Long-eared Owl *Asio otus* on 3 Oct and also on 6 Oct. Pied/White Wagtail *Motacilla alba* 22 Aug (5), Grey Heron (2) in fog on 20 Sep, Blackcap 25 Sep (2), 4 Oct (1), 6 Oct (1), prob. Garden Warbler 25 Sep, Chaffinch 28 Sep (5), 1 Oct (1), 6 Oct (1), Brambling *Fringilla montifringilla* 3 Oct (2M), Wheatear 14 Aug (1), 4 Oct (1).

On 11 Oct ARL recorded a Snowy Owl *Nyctea scandia* in position 60°30′N 04°44·N (80′W Foula, Shetland), and also numerous passerines including Redwing (3). The owl followed the ship for 1½ hrs and departed SE flying at 30-40 ft.

SECTION C

WEST ATLANTIC (West of 30°W) AND SOUTH ATLANTIC

1980

On 4 May 15 Great Blue Herons *Ardea herodias* and a Louisiana Heron *Hydranassa tricolor* were recorded (MET) in position 30°15′N 77°20′W (150′E Jacksonville, Georgia).

On 24 May MV *Ravenswood* (MET) recorded a Purple Gallinule *Porphyrula martinique* off Florida Keys.

On 21-22 Sep MV *Adviser* (MET) reported a female Merlin *F. columbarius* eating a small bird in position 23°06′N 62°42′W (570′SSE Bermuda).

On 4 Oct MV *C.P. Voyageur* (MET) was on passage from Montreal to Hamburg. On leaving Belle Isle Straits about a dozen "sparrow-like" birds came on board, followed by an American Sparrowhawk *F. sparverius* (F), and took refuge in the container store. On the day prior to approaching the west of Scotland it emerged and took station on the bridge where it was photographed. It was seen to catch small seabird about its own size.

On 13 Oct whilst on passage from Norfolk, Va to Southampton, UK MV *Dart America* (MET) recorded a large unidentified owl (possibly a Barred Owl *Strix varia*; it showed no interest in other small birds. An Osprey *Pandion haliaetus* took station on top of the crane and made a stoop at a Starling *Sternus vulgaris* which it knocked into the sea and subsequently recovered. The position was 39°43′N 68°38′W (150′SE C. Cod).

On 17 Oct MV *Anco Sceptre* (MET) recorded two female Merlins in position 33°01′N 53°15′W (900′S Newfoundland). They were not seen to take food, and one died.

On 26 Oct, PD reported a juv Great Blue Heron which landed on the foc's'le in position 35°N 64°30′W (470′SSE C. Cod); it was exhausted, having been storm-driven by a huge depression located off the coast of Virginia. After being confined in a shower for 8 days, and fed on trout and fillet of beef, it survived and was presented on arrival to Bremerhaven Zoo.

On 15 Nov a Barn Swallow *H. rustica* was recorded in position 22°N 50°W (1000′SE Bermuda) by MV *Dover Universal* (MET), and on 25 Nov MV *Yorkshire* (MET) noted a Red-winged Blackbird *Agelaius phoenicurus* in position 28°45′N 54°34′W (380 ′SW S. Carolina).

1981

On 5 Jan a Snow Bunting *Plectrophenax nivalis* was on board ½ day MV *King William* (MET) in position 37°15′N 59°35′W (550′SW Newfoundland).

On 8 Jan a Great Blue Heron arrived on board MV *Stratherrol* (MET) in position 34°15′N 75°47′W (60′S Cape Hatteras), and on 19 Mar another hit the windlass attempting to land on MV *London Conference* (MET) in position 31°10′N 79°57′W (70′ off coast of Georgia).

On 25 Apr, RRW recorded a Swallow on board for 48 hrs from a position 27°18′N 72°W (250′NE Bahamas) to 22°12′N 65°42′W (220′N Puerto Rico). It was not seen to take food.

On 27 Apr MV *King Alfred* (MET) (Captain J. K. Currie) recorded an Osprey, a Merlin, 3 Swallows, an unidentified hawk, and a Mourning Dove *Zenaidura macroura* on board in position 37°27′N 52°22′W (570′ from C. Race and 700′NE Bermuda). On 28 Apr JKC reported that the Merlin caught and ate 3 Swallows (720′NE Bermuda).

On 20 May MV *Selby Dyke* (MET) recorded three Golden Plover *Pluvialis apricarius* in position 50°20′N 33°18′W (750′E Newfoundland and 750′SE C. Farewell).

On 17 Sep, when two days out from New York en route to Amsterdam, MV *Anco Sovereign* (MET) reported many small "warblers" flying round inside and outside the accommodation, and several were later found dead.

An unidentified falcon (possibly a Merlin) took passage on MV *Victoria City* (MET) 5-8 Oct, and was seen to eat two small birds. (Position: 33°28′N 24°32′W, 810′SE C. Farewell.)

A Peregrine Falcon took passage in MV *Wiltshire* (MET) 5-12 Oct, arriving on board in driving rain and wind force 6 in Florida Straits until last seen 500′W Azores. It averaged 6 kills per day (6 between 0600-1200 on one day). There were initially 35-40 small birds on board but they were no match for the falcon which swooped at them as they flew just above the water. Sometimes they were caught in mid-air, and others were knocked into the water and retrieved. The falcon spend 5 minutes trying to catch a "pigeon" without success.

On 11 Oct a Peregrine arrived on board MV *Ben Nevis* (MET) during a local thunderstorm in NE Providence Channel. The ship was covered with moths and flying insects, and also a flock of small warblers. Remains of several birds eaten by the falcon were found later.

On 9 Nov, 4 Starlings *Sternus vulgaris* were reported in position 33°38′N 77°W (50′SE C. Fear, S. Carolina) by MV *Stratherrol* (MET), and on 13 Dec MGF recorded a Burrowing Owl *Athene cunicularia* on board in position 32°12′N 77°30′W (120′SE S. Carolina). The owl ate raw mincemeat and was released two days later on arrival Savannah.

1982

On 17 Jan two Bobolinks *Delichonyx oryzivorus* were reported by MV *Spraynes* (MET) in position 41°45′N 52°53′N (110′E Newfoundland). They were pursued by seabirds and one was seen to fall into the sea. A White-winged Scoter *Melanitta deglandi* was sighted circling the ship.

On 30 Mar a nightjar *Caprimulgus* sp. was aboard MV *Wiltshire* (MET) in position 10°27′N 59°40′W (75′E Trinidad).

On 31 May a probable Great Egret *Casmerodius albus* was on board MV *British Spey* (MET) in position 29°06′S 15°20′W (500′NW Tristan da Cunha).

On 22 Jul, KS recorded two Barn Swallows circling his ship in position 27°04′W 73°53′W (180′E Bahamas). The wind was SE/3 with good visibility.

On 17 Sep MV *Vic Bilh* (MET) noted 10-12 small warblers and eight Green Herons *Butroides virescens* in position 32°N 76°55′W (110′SE C. Fear, S. Carolina). Hurricane Debbie was to the north at this time.

On 16-17 Oct MV *Arthur* (MET) saw an Osprey fishing in position 21°45'N 59°W (300'E Virgin Is and 650'SE Bermuda). It was also seen to catch and eat a small bird.

The massive migration which takes place at night off the east coast of USA usually peaks in October and comprises mostly of small passerines, many of which take refuge or come to grief aboard ships passing through the area. The vast majority are unidentified (and unreported), so it was nice to see the five BEH forms completed by LRO(G) Cottle, of HMS *Broadsword*. From the accompanying photographs and corpses the British Museum was able to confirm the identification and thus provide a valuable sample of the species involved.

Two Common Yellow-throats *Geothlypis trichas* (one F and one juv M) were found on 11 Oct off Andros Island (Bahamas). A male Golden-winged Warbler *Vermivora chrysoptera* (which winters chiefly in Central America and is a rare transient in the Bahamas) and a male Scarlet Tanager *Piranga olivacea* (which winters in South America) came to grief on 16 Oct (30'E Andros Is).

A Northern Slate-coloured Junco *Junco hyemalis* was found on 11 Nov in position 40°38'N 70°38'W (40'SE C. Cod).

SECTION D

GULF OF MEXICO AND CARIBBEAN

1980

MV *Astronomer* (MET), on passage from Kingston, Jamaica to Belize, recorded on 14 Oct 6 white egret sp., 6 swallow sp., and 2 birds of prey (probably American Kestrel *Falco sparverius*). One of these dived at a swallow, which fell into the water, but it was unable to retrieve it.

On 16 Oct PD reported three Peregrines *Falco peregrinus* (one of which he photographed) in 15°N 72°W (Central Caribbean). The wind was gentle from NE, and each arrived singly from N. During the 24 hrs spent aboard they preyed on several "sparrows" and "thrushes" and departed next day heading SW.

On 18-19 Oct an Osprey *Pandion haliaetus* was on board MV *Star Blackford* (MET) in position 17°10'N 70°20'W (60'SE Haiti).

On 21 Nov SS *Act 1* (MET) recorded a Common Egret *Casmerodius albus* in position 11°43'N 78°49'W (140'N Panama).

1981

Cattle Egrets *Bubulcus ibis* feature in many reports including MV *Andes* (MET) on 3 Jan (2) - 15°25'N 76°22'W (140'S Jamaica), and MV *Markhor* (MET) - one on 6-7 Jun off Cayman Is which remained on board for a day. It enjoyed taking a salt water shower from a fire hydrant.

KS also recorded Cattle Egret and Barn Swallows *H. rustica* (3) on 30 Apr in position 26°N 85°25'W (180'W Florida). On 1 May he saw three Little Blue Herons *Florida caerulea* flying in Florida Straits (24°45'N 80°26'W).

On 10 Jun MV *Stratherrol* (MET) recorded two Great White Herons *Ardea herodias* in position 24°24'N 84°W (110'W Florida).

On 15 Nov KS recorded 14 Snowy Egrets *Egretta thula* and 4 Barn Swallows circling the ship in position 13°25'N 78°10'W (270'S Jamaica).

1982

Once again, Cattle Egrets were regularly reported:

On 26 and 27 Jul by KS in position 24°34'N 82°49'W (90'W Florida), and again on 5 Aug (27°36'N 83°W).

On 7 Aug KS noted Great Egret *Casmerodius albus* 15′W Tampa, Florida, and on 9 Aug a Great Blue Heron.

On 8 Oct KS saw 30 Cattle Egrets flying past in position 22°06′N 85°25′W (45′SW Cuba), and on 9 Oct a further 8 Cattle Egrets when 180′W Cuba. A male Peregrine circled once round the ship on 9 Oct, and on 10 Oct an Osprey *Pandion haliaetus* circled for 5 minutes in position 12°43′N 80°30′W (160′SE Nicaragua).

On 23 Apr PD recorded a Peregrine which arrived from S, and after resting for one hour departed heading N in position 14°49′N 73°32′W (170′NW Venezuela).

On 1 Sep MV *Resolution Bay* (MET) was approaching Cristobal anchorage, and while preparing the starboard anchor discovered a bird's nest containing two white eggs lodged on one of the flukes. Unfortunately, it was impracticable to retrieve it. The last time the ship had been in port for more than a day was at Tilbury, London for 5 days in mid-August (it seems likely this was a London "pigeon" — MBC).

On 22 Sep a spectacular "fall" of autumn migrants was described by MV *Vic Bilh* (MET) while anchored off the coast of Mexico: " . . . Many thousands of birds including many 'finches' shrouded the vessel. The ship's lights in front of the accommodation were dimmed as many birds were being killed as they hit the superstructure. Several people telephoned the bridge to complain due to the noise as bird after bird came to grief. There were several larger 'herons' and some resembling 'kingfishers'. Very heavy rain, thunder and lightning plus all the birds gave the appearance of a Hitchcock movie."

On 22 Sep RLW was in position 22°53′N 80°43′W (80′NNE C. Catoche) and recorded an Orange-crowned Warbler *Vermivora celata*. It remained for 7 hrs, and was photographed and given water. Next day RLW also photographed a Chuck-Will's-Widow *Caprimulgus carolinensis* in position 26°30′N 87°36′W (165′SE Mississippi), and on 27 Sep found a Black-whiskered Vireo *Vireo altiloquus* with an injured wing off Cortes (Honduras). It was kept on board for 5 days and fed on flies and hard-boiled egg. It flew off at night.

During the period 2-31 Oct RLW recorded a number of species of interest, many of which he photographed, including:

Burrowing Owl *Athene cuniculara* and six Barn Swallows on 2 Oct (25° 17′N 87°23′W - 210′N C. Catoche).

Myrtle Warbler *Dendroica coronata* on 5 Oct (21°36′N 86°25′W).

Palm Warbler *Dendroica palmarum* on 6 Oct (26°25′N 87°40′W - 170′SE Mexico).

Oven Bird *Seiurus aurocapillus* (2) being chased by an American Kestrel *F. sparverius* on 8 Oct (at least one was caught) - position 25°08′N 87°22′W (204′N C. Catoche).

A Yellow-throated Vireo *Vireo flavifrons* with an injured wing was found on 14 Oct in position 26°37′N 87°45′N (160′SE Mississippi); it was aggressive, and fed on moths and flies. A Peregrine Falcon (Duck Hawk) was on board for ½ hr p.m.

On 21 Oct a Great Egret landed on one of the containers (20°51′N 86°36′W - 18′NE Mexico), and on 28 Oct three more Great Egrets and a Gray Catbird *Dumatella carolinensis* in position 19°25′N 86°52′W (33′NE Mexico).

On 31 Oct two Cattle Egret were on board for 23 hrs in position 25°25′N 87°17′W (225′N C. Catoche).

SECTION E
MEDITERRANEAN

1979

In the western Mediterranean PWGC recorded the following species during the period 13-16 May:

13 May, 39°40′N 01°34′E (34′N Ibiza): Swift *A. apus* (8), Swallow *H. rustica* (2), Turtle Dove *S. turtur* (6), Spanish Wagtail *M. flava iberiae*, Whitethroat *Sylvia communis* (3), Blackcap *S. atricapilla* (1F), Redstart *P. phoenicurus* (1F), Subalpine Warbler *S. cantillans*, Olivaceous Warbler *Hippolais pallida*, and prob. Chiffchaff *P. collybita* (2). On 14 May, when 8′S of entrance to Gulf of Fos, two Whitethroat and six Turtle Doves were seen; and on 16 May a Quail *C. coturnix*. A Wood Warbler *P. sibilatria* was found on board, newly dead, and sent to British Museum (BEH form).

1980

On 19 Apr MV *Wild Marlin* (MET) was at anchor off Ashdod, Israel, and recorded Peregrine *F. peregrinus*, White Stork *C. ciconia*, Bee-eater *Merops apiaster* and many eagles *Buteo sp.* Several of the latter, apparently young birds, landed in the sea and could not take off again; at least one was drowned. The Bee-eater perched on the aerials and darted at amazing speed catching dragonflies and swallowing them whole.

On 11 Sep SS *British Pioneer* (MET) recorded in the Ionian Sea (34°50′N 20°E - 140′N Cyrenaica) Wheatears *O. oenanthe* (6), Turtle Dove (2) and several Swallows. On 23 Sep when 75′S Crete (33°50′N 24°05′E) a *flava* Wagtail was noted on board.

On 15 Nov MV *Wild Mallard* (MET) recorded *phylloscopus* Warbler, Redstart and Robin *Erithacus rubecula* in position 36°17′N 17°24′E (110′SE Sicily), and on 19 Nov an Owl (probably Tawny *Strix aluco*) was on board in position 36°N 16°48′E (95′SE C. Spartivento).

1981

QASB recorded a Hoopoe and Swift on 9 May in position 38°32′N 7°22′E (70′SW Sardinia), and Swallows on 26 Jun - 32°44′N 26°39′E (90′N Libya). On 4 Jul a Swift circled 15 mins when 90′E C. Passero (36°30′N 16°51′E).

On 26 Sep CR recorded a Lesser Kestrel *F. naumanii* on board 2 hrs 75′NW Port Said.

1982

On 25 May MV *London Baron* (MET) in position 40°57′N 28°14′E (Sea of Marmora) reported about 70 White Storks and a single Black Stork *C. nigra* flying N.

On 1 May MV *Vendee* (MET) crossing the Ionian Sea reported Kestrels *F. tinnunculus* (2) and a number of other birds including Swallows, House Martin *Delichon urbica*, and Wheatears. The Kestrels were seen to catch and eat several birds including a Wheatear.

On 13 Jul MV *Ivybank* (MET) reported a Grey Heron *Ardea cinerea* 25′SW Sicily in the Malta Channel, and on 28 Jul MV *Royal Prince* (MET) a Kestrel (F) in position 35°05′N 28°09′E (58′S Rhodes), and a Hoopoe *Upupa epops* in position 35°54′N 33°59′E (20′S Turkey).

During the period 22-26 Oct MV *Kowloon Bay* (MET) recorded Swallow, House Martin, Great Grey Shrike *Lanius excubitor*, White Wagtail *M. alba*, Wheatears (2), *flava* Wagtail, Starling *Sternus vulgaris*, Chaffinch *Fringilla coelebs*, "Willow/Chiff" *Phylloscopus* sp., Robin, Kestrel, Redsdtart *P. phoenicurus* and Turtle Dove.

RRW recorded six Swallows and a Kestrel on 7 Oct at 35°48′N 16°30′E (75′SE C. Spartivento, Sicily), and two unidentified herons *Ardea* sp. flying S 70′NW Egypt (32°30′N 29°24′E).

SECTION F

RED SEA AND GULF OF ADEN

1980

On 30 Sep SS *British Pioneer* (MET) recorded in central Red Sea (20°45′N 38°20′E) two Bee-eaters *Merops apiaster*, a Quail *Coturnix coturnix*, Cattle Egret *Bubulcus ibis*, 10 Turtle Doves *S. turtur*, and many Swallows *H. rustica*. On 1 Oct an unidentified Eagle sp. (the size of a goose) was on board for 30 mins in S. Red Sea (18°18′N 39°54′E). On 3 Oct, when approaching Bab-el-Mandeb Straits (12°40′N 43°18′E), several hundred (possibly over a thousand) unidentified raptors flew over the ship east-west towards Africa at heights varying 0-500ft. They were the size of large buzzards or small eagles, and flew in random small groups.

On 24 Oct MV *Anco Champion* (MET) recorded a Bee-eater 50′ESE Aden.

1981

On 24 Mar MV *Scottish Eagle* (MET) reported a kestrel *Falco* sp. in the Gulf of Suez (20°04′N 38°51′E), and on 12 Mar a Hoopoe *Upupa epops* was on board MV *Patroclus* (MET) in central Red Sea (21°11′N 38°06′E).

On 28 Sep MF reported a Sandmartin *Riparia riparia* on board all day, and a Crag Martin *Hirundo rupestris* rested for 10 mins in S. Red Sea (16°40′N 41°15′E).

On 27 Oct MV *Falmouth Bay* (MET) reported a falcon, thought to be a Peregrine *F. peregrinus*, perched on the mast and flying off to pursue small birds, in central Red Sea (19°30′N 39°20′E).

1982

Hoopoes were recorded by CR on 29 Jan (18°51′N 39°50′E) and by MF on 23 Feb (S. Red Sea, 16°15′N 41°03′E), together with a Ring-necked Dove *S. capicola*, and two more on 28 Feb in central Red Sea (19°14′N 37°28′E).

On 1 Mar MF recorded a Compact Weaver *Ploceus pachyrhyncos* in central Red Sea.

On 26 May SS *Jervis Bay* (MET) recorded a Bee-eater and a White Stork *Ciconia ciconia* in N. Red Sea (27°20′N 34°08′E), which settled briefly on board.

On 12 Jun MV *Overseas Argonaut* (MET) recorded a Peregrine on board which was subsequently joined by a second when both departed in position 12°35′N 45°45′E (30′S Aden).

SECTION G

INDIAN OCEAN AND ARABIAN SEA

1979

PWGC recorded the following highlights:

On 17 Apr a Lesser Flamingo *Phoeniconaias minor* was on board in position 8°30′S 44°47′E (95′NW Aldabra). It was very tame and stayed for 2 hrs. On 18 Apr a Squacco Heron *Ardeola ralloides* was aboard for 4 hrs at 11°30′S 42°38′E (39′W Grand Comoro, 125′E Mozambique). Another Squacco Heron was sighted flying SSW at 20ft in position 22°12′S 37°22′E (100′E Mozambique) on 20 Apr.

A lone Swallow *H. rustica* circled for 3 hrs in 8°20′N 18°08′W (192′SW Bijagos archipelago) on 5 May. The wind was N/2.

On 4 Sep a White Wagtail *M. alba* and two Turtle Doves *S. turtur* were aboard

in position 18°26'N 60°06'E (330'SE Ras al Hadd, Oman). On 5 Sep a Wheatear *Oenanthe* sp. was seen in position 15°35'N 66°27'E (375'SW India, 520'SE Oman). The wind was SW/4, and cloudy. On 7 Sep three adults and one juv Collared Pratincole *Glareola pratincola* circled and departed E in position 7°32'N 75°40'E (118'WSW C. Comorin, India). On 9 Sep a Swallow was noted 05°42'N 83°10'E (100'ESE Sri Lanka).

On 11 Sep, when in position 5°48'N 88°56'E (425'E Sri Lanka and 295'WSW Nicobar Is), a *flava* Wagtail, two Swallows and a rail *Rallus* sp. were recorded. Wind was S/2. Three Swallows were seen p.m. when a further 50' east.

On 12 Sep a probable Ruddy Kingfisher *Halcyon coromanda* and a *flava* Wagtail were on board in position 5°52'N 92°E (120'WSW Nicobar Is). Further *flava* Wagtails were seen on 13th (2), when 35'N Sumatra, 14th and 15th (2). A probable Brown Shrike *Lanius cristatus* was aboard on 14 Sep (43'NE Sumatra), and when passing Straits of Malacca on 16 Sep a Paradise Flycatcher *Tersiphone paradisi* (8'W Malaysia) and a bee-eater *Merops* sp. An Eastern Crowned Warbler *Phylloscopus coronatus* was found dead an examined (BEH form).

On 2 Nov a Pond Heron *Ardeola grayii* was flying W alongside the ship in position 6°N 88°38'E (340'E Sri Lanka and 365'WSW Nicobar Is). On 4 Nov an unidentified egret sp. was flying W, and also an unidentified hawk, in position 6°08'N 79°14'E (50'W Sri Lanka). On 5 Nov a female Paradise Flycatcher, a Richard's Pipit *Anthus novaeseelandiae*, a kestrel (probably *F. tinnunculus*), and also a small warbler were aboard in position 7°29'N 75°42'E (120'SW C. Comoron). On the same day a Peregrine Falcon *F. peregrinus* arrived on board and remained for 2½ days until 116'S Kalpeni Is (8°11'N 73°54'E).

A *flava* Wagtail was aboard on 7 Nov in position 14°54'N 67°32'E (360'W India, 570'S Kandhi). The wind was NE/4, and sky partly cloudy.

On 9 Nov a Desert Wheatear *O. deserti* (M) was on board in position 21°30'N 60°58'E (75'SE Ras al Hadd, Oman). Later on the same day was a Crested Lark *Galerida cristata*, and an unidentified pipit *Anthus* sp. The wind was N/3, with clear skies.

On 1 Dec a *flava* Wagtail, a pond heron *Ardeola* sp., and an *Acrocephalus* warbler were on board in position 6°50'N 77°34'E (74' C. Comorin). The weather was overcast with rain, with wind NE/4.

On 4 Dec a Great White Heron *Egretta alba* was observed flying E in position 5°55'N 88°54'E (430'E Sri Lanka, 300'SW Nicobar Is).

1980

On 13 May PWGC recorded a possible Olive Thrush *Turdus olivaceus* in position 21°18'S 40°27'E (170'W Madagascar and 62'N Ils Europa). On 16 Jun he had aboard for 25 mins a Cinnamon Bittern *Ixobrychus cinnamomeus* in position 6°08'N 94°22'E (46'W Nicobar Is and N. Sumatra). On 18 Jun three House Swifts *Apus affinis* were seen in position 2°48'N 100°59'E (17'W Malaysia).

On 1 Oct MV *Strathdevon* (MET) recorded a Scops Owl *Otus scops* in position 25°N 57°40'E (mid. Gulf of Oman). It was showing traces of down, so was presumed to be a juvenile.

On 3 Oct a Saker Falcon *F. cherrug* took up residence on MV *Trongate* (MET) in SE Arabian Sea and remained until 6th on passage towards Adelaide. It made several ineffective stoops at small birds until it finally caught and ate one.

On 3 Nov SS *Kowloon Bay* (MET) reported a Crow-billed Drongo *Dichrurus annectans* in position 7°17'N 74°55'E (100'E Maldives).

1981

On 4 Oct MV *British Norness* (MET) recorded a Grey Heron *A. cinerea* 65'SE Socotra.

On 5 Nov MV *Berkshire* (MET) (Captain J. Waldie, a R.N.B.W.S. member) recorded a White Wagtail *M. alba* on board catching flies in position 15°N 56°48′E (170′SE Oman and 100′S Kuria Muria Is), and on 5 Dec a *flava* Wagtail (probably Ashy-headed *M. f. cinereocapilla*) was aboard 100′W Bombay.

On 21 Nov a Blue-cheeked Bee-eater *Merops superciliosus* arrived on board MV *Garinda* (MET) in position 17°59′N 57°11′E (60′SE Oman) and remained for 3 days.

1982

On 5 Nov MV *W. A. Mather* (MET) recorded a falcon (possibly a Kestrel *F. tinnunculus*) in position 5°56′N 86°23′E (240′E Sri Lanka in Bay of Bengal).

On 9 Dec MV *Cardigan Bay* (MET) recorded a Reef Heron *Egretta sacra* (dark phase) in position 8°47′N 69°26′E (200′W Maldives), and on 11 Dec MV *British Commerce* (MET) had aboard all day a Short-eared Owl *Asio flammeus* in position 15°29′N 66°33′E (330′SW Bombay).

On 20 Dec MV *Matangi* (MET) recorded a probable Red-necked Falcon *F. chicquera* in position 20°S 39°E (180′SE Mozambique).

SECTION H

PERSIAN GULF AND GULF OF OMAN

1979

PWGC recorded the following observations:

25 Aug. 15°35′N 58°50′E (135′SE S. coast of Oman) a Wheatear *O. oenanthe* and a probable Ortolan Bunting *Emberiza hortulanus*.

27 Aug. Hoopoe *Upupa epops* (24°08′N 59°39′E - 26′ENE Oman).

1 Sep. A Curlew *Numenius arquata* arr. SE and dep. NW, and a Hoopoe, Isabelline Wheatear *O. isabellina* on board in position 28°08′N 50°33′E (38′W Iran). A probable Olivaceous Warbler *Hippolais pallida* was noted p.m.

19 Nov. In position 29°40′N 48°48′E (20′S Iran) a Lanner Falcon *Falco biarnicus* was on board for 2 days, also a Wheatear *O. oenanthe* and a Squacco Heron *Ardeola ralloides*.

21 Nov. An Osprey *Pandion haliaetus* was noted in the same area, and on 26 Nov in position 25°12′N 57°30′E (30′SW Iran in Gulf of Iran) a Reef Heron *Egretta gularis* stayed briefly and departed NW.

1980

On 5 Jun PWGC recorded two probable Spotted Flycatchers *Muscicapa striata* on board in position 27°58′N 39°E (36′W Iran).

1981

Ospreys were recorded 2 miles off Bahrein by MV *British Holly* (MET), and two in Jebel Dhanna anchorage (24°25′N 52°34′E) by MV *British Commerce* (MET). Dates were not given.

On 20 Apr a nightjar *Caprimulgus* sp. was noted by MV *British Holly* (MET) 25′S Yemen (14°28′N 50°19′E).

On 26 Sep a Scops Owl *Otus scops* was on board MV *Gandara* in the Gulf of Oman (24°27′N 59°53′E). It took shelter in the external accommodation, and fed on raw meat. It was photographed, and released on approaching land.

On 25 Oct MF recorded a Peregrine *F. peregrinus* in position 24°N 57°44′E (Gulf of Oman), and on 7 Nov another falcon, identified from photograph and BEH form as a Hobby *Falco subbuteo*, in position 23°57′N 57°30′E.

Immature Hobby *Falco subbuteo* on board H.M.S. *Herald*, Gulf of Oman, 7 November 1981.
Photo: Lt.-Cmdr. M. French

SECTION I

PACIFIC, CHINA SEA, YELLOW SEA AND PHILIPPINE SEA

1979

In the S. China Sea PWGC recorded a spectacular movement of hawks thought to have been Shikra *Accipiter badius*, but in view of DMS observations in similar area in 1982 (see below) may have been Japanese Sparrowhawks *A. gularis*. On 23 Sep, when in position 00°50′N 105°41′E (62′E Bintan), 15 were seen flying SSE at height 200-300ft. Four were on board, one eating a small bird. On 24 Sep over 40 were seen in ones and twos heading SE. Ten Swallows *Hirundo rustica* also were noted. On 25 Sep at least 12, and on 26 Sep at least 15 hawks and several swallows being chased by the latter. At least 220 *flava* Wagtails were also recorded, one of which was caught by a hawk.

On 27 Sep one *Accipiter* and 15 Swallows were noted.

On 27 Oct, whilst transiting Malacca Straits (01°25′N 103°55′E), PWGC recorded a White-bellied Sea Eagle *Haliaetus leucogaster*, and on 31 Oct a Crow-billed Drongo *Dicrurus annectans* and a Swallow in position 05°52′N 96°22′E (37′N Sumatra).

1980

The following highlights are extracted from Meteorological Logs:

On 14 Oct an Osprey *Pandion haliaetus* landed on the sampson post of MV *Servia* in position 4°42′N 82°20′W (190′S Panama).

On 23 Nov a Barn Owl *Tyto alba* was recorded by MV *Rounton Grange* in position 35°N 160°E (approx. 1000′ from Hokkaido and 960′ from Kuril Is).

On 23 Dec a Peregrine *Falco peregrinus* took passage on MV *Oroya* in

position 6°10'S 81°10'W (close off coast of Ecuador). It appeared from west and took up position on the mast. It seemed exhausted and stayed 24 hrs during which time it was seen to catch a petrel sp. On 24 Dec it departed and made towards coast of Peru.

During the period 23-31 Mar CR recorded a Eurasian Woodcock *Scolopax rusticola* on 23rd on board in position 27°49'N 115°35'E (150'NW Okinawa) which remained for 24 hrs. A Purple Heron *Ardea purpurea* was on board throughout 30th (205'E Saigon). The wind was NE/4 and it disappeared overnight. On 31 Mar six probable Barn Swallows *Hirundo rusticola* were seen in position 06°31'N 107°41'E (270'SSE Saigon). The wind was NE/5.

On 2 Apr MV *Fersno City* (MET) recorded an exhausted Asian House Martin *Delichon dasypus* on board in position 17°10'N 118°E (120'W Luzon), and p.m. on 22 Apr a probable Cattle Egret *Bubulcus ibis* landed 27°30'N 131°E (165'S Japan). On 23 Apr a Pacific Swallow *Hirundo tahitica* arrived exhausted (but recovered and flew off later) in position 30°42'N 134°44'E (160'S Japan).

On 13 Oct a Peregrine caught and ate a petrel sp. on board MV *Scottish Eagle* (MET) in position 45°46'N 167°44'N (480'SE Aleutians). On 17 Oct, whilst in S. China Sea (16°N 118°E - 120'W Luzon), MV *Cape Rodney* recorded six Great White Heron *Egretta alba*, and also an unidentified "hawk" chasing a small bird. The wind for the previous 24 hrs had been N-NE/3-4.

On 19 Oct an Osprey spent all day on board MV *Magdalena* (MET) in position 15°20'N 98°00'W (60'S Mexico). It was tame, but did not eat a herring offered it.

On 26 Oct MV *Saxonia* (MET) recorded a Snowy Owl *Nyctea scandiaca* in position 50°30'N 155°30'W (400'SE Unimak Is, Aleutians). It circled 15 mins before departing SE.

On 24 Nov KS was on passage from Balboa to Inchon, N. Korea, and recorded Common Egrets *Egretta garzetta* (in groups of 22, 14, 2 and 5) in position 15°59'N 109°21'W (340'SW Mexico). More were seen on 26th (2), 27th (5), and 29th (1) when in position 21°46'N 139°10'W (900'E Hawaii).

1982

On 24 Jan SS *Encounter Bay* (MET) in position 39°35'S 145°00'E (Bass Strait) recorded a group of Black Swans *Chlenopis atrata* flying SE towards Tasmania.

During the period 22 Feb-16 Mar DMS made regular trips from Singapore to support the various oil platforms in the Trengganu Offshore Oilfield 5°26'N 105°12'E - 105' off the coast of Trengganu) and made the following observations:

22 Feb. Three Oriental Pratincoles *Glareola maldivarum* on board overnight, also three Crow-billed Drongos *Dicrurus annectans*; single drongos were again seen on 9 and 25 Mar and 3 Apr.

On 16 Mar in Singapore Straits, whilst overtaking a large oilwell jacket under tow, a group of seven Japanese Sparrowhawks took off from the structure and soared to a great height before heading north towards the coast of Malaysia.

On 3 Apr a Collared Kingfisher *Halcyon chloris* and a Siberian Flycatcher *Muscicapa sibirica* took refuge on board in heavy rain and poor visibility. On 4 Apr a female Grey Nightjar *Caprimulgus indicus* was aboard, and on 8 Apr an exhausted Fork-tailed Swift *Apus pacificus*; the wind was NE/4. On 14 Apr two Little Green Herons *Butorides striatus* were on board.

A fascinating glimpse of the variety of species involved in the autumn migration is provided by the long series of reports from DMS, again operating in the same area off the coast of Malaysia. Most passages of the Straits took place in darkness, and although on occasions several large birds, thought to be either raptors or owls, and possibly also storks, were seen briefly in the ship's lights, these could not be identified; the vast majority of smaller species presumably passed overhead unseen.

In the Trengganu Offshore Oilfield, however, many species took refuge on the oil rigs or the support ships (MV *Pacific Dagger* and MV *Pacific Prospector*). These

stragglers and drop-outs were presumably only a small percentage of the whole range of species involved. As off North Borneo (see p. 82) many were attracted by the burning flares, and DMS commented that this was especially so when the sky was overcast. He wondered whether the birds could have mistaken the flare for the moon.

The following species were recorded during the period 26 Jun-7 Nov.

Herons. An interesting variety including:

Little Green Heron. One juv circling oil platform on 20 Sep. Also on 4 Oct (1), 13 Oct (1), 18 Oct (2), 19 Oct (1), 25 Oct (1), and 5 Nov (1).

Chinese Pond Heron *Ardeola bacchus*. One on oil platform 18 Oct and 25 Oct.

Cattle Egret *Bubulcus ibis*. Six on 28 Oct.

Plumed Egret *Egretta intermedea*. One flew past SW on 7 Oct.

Malayan Night Heron *Gorsachius melanophus*. One on platform 6 Nov.

Yellow Bittern *Ixobrychus sinensis*. Two juv on platform 18 Oct.

Prob. Black Bittern *Dupetor flavicollis*. One on 1 Nov and another on 5 Nov; black plumage and size larger than Little Green Heron.

Of raptors, the most noteworthy was an Osprey circling above the platform on 5 Nov, and a White-bellied Sea Eagle on 13 Sep. Commonest by far was Japanese Sparrowhawk (but see PWGC's records in 1979 above). These were seen regularly - 26 Sep (1 + 1 prob.), 2 Oct (6), 5 Oct (3+), 7 Oct (1 juv), 10-14 Oct (12+), 18-19 Oct (9), 5-9 Nov (4). At the height of the passage at least one and sometimes three were on board hunting small passerines, especially swallows. The prey was ripped into pieces and eaten, leaving only feathers and feet.

A juv Chinese Goshawk *Accipiter soloensis* was seen on 18 Sep. On 18 Oct a Red-breasted Crake *Porzana fusca* was aboard, and on 25 Oct a White-breasted Waterhen *Amaurornis phoenicurus* was seen ditched in the sea alongside. It swam strongly and refused to be rescued. Although common throughout S.E. Asia this species is not normally considered migratory.

Few waders were sighted:

On 5 Nov a brief glimpse only was obtained of a probable Kentish Plover *Charadrius alexandrinus* on a mooring buoy. A Common Sandpiper *Actitis hypoleucos* was seen at dusk on 12 Aug and another on 12 Sep. Also on 12 Aug was noted a Wood Sandpiper *Tringa glareola*. A single Ruddy Turnstone *Arenaria interpres* was aboard all day on 3 Oct, and an unidentified snipe *Gallinago* sp. flew past very low on 12 Oct.

On 10 Oct a flock of 10 Oriental Pratincoles flew over ship at 150ft. heading SSE, and on 14 Oct a similar flock of 18.

On 13 Oct a Red Turtle Dove *Streptopelia tranquebarica* was observed sitting on the flare boom of Tinggi A platform when a Japanese Sparrowhawk alighted 15ft. away. For at least 10 minutes the latter made no move until the dove darted off and the hawk followed in pursuit. After a fierce aerial chase, the dove finally escaped. On 18 Oct a Pale-capped Pigeon *Colombo punicea* was recorded in position 5°32′N 104°57′E - 108′ Malaysia and 180′S of its normal range in Cochin.

A Brown Hawk-owl *Ninox scutulata* was seen on an oil platform 5-6 Nov.

At dawn on 7 Nov a Grey Nightjar was found on deck and released at dusk. It was still present at dawn next day before finally disappearing.

Various swiftlets were sighted: On 8 Sep circling the platform was a probable Edible-nest Swiftlet *Collocalia fuciphaga*, and on 15 Oct flying low across the Singapore Straits, heading South, were several small flocks (totalling about 70) of probable Himalayan Swiftlet *Collocalia brevirostris*.

A spectacular variety of Kingfishers were seen, including: Common Kingfisher *Alcedo althis*. Singles on Tiong A oil platform on 28 Aug and on Tapis B platform on 26 Sep.

On 25 Sep a Ruddy Kingfisher *Halcyon coromanda* was reported to DMS by Tim Culpin, Chief Mate of *Pacific Explorer*. Black-capped Kingfisher *Halcyon*

pileata was recorded on 10 Oct (at least 5), 14 Oct (2), 1 Nov (1) and 5-8 Nov (4). One was caught and released on return to Singapore on 15 Nov. A single White-throated Kingfisher *Halcyon smyrnensis* was seen on 3 Oct.

Barn Swallows *Hirundo rustica* were seen in large numbers throughout the period. The first was seen on 26 Jun, and thereafter daily in ones and twos. By late Aug the rate had increased to about 10 per day, and during the periods 13-21 Sep and 25-27 Sep a steady stream heading SSW passed in ones and twos, and small groups occasionally up to 30. By 2-6 Oct numbers were decreasing and most were juveniles; 15-17 Oct (10 only), 25-29 Oct (2), 7 Nov (2), 8 Nov (2). Throughout October and November a high proportion fell prey to Japanese Sparrowhawks (see above). Red-rumped Swallow *H. daurica* was seen on two occasions, in Oct and 6 Nov (identified as *H. d. striolata*).

Crow-billed Drongo is widely reported on board ships throughout S.E. Asia, and DMS recorded singles on 2 Oct, 6 Oct and 11 Oct.

The many small warbler species are notoriously difficult to identify, even in perfect conditions, but the following were recorded:

Arctic Warbler *Phylloscopus borealis*. One was caught and released on 18 Sep, and another on 27 Sep.

Great Reed Warbler *Acrocephalus arundinaceous*. 24 Oct (1), 15 Oct (1), and 6 Nov (1).

Lanceolated Warbler *Locustella lanceolata*. 18 Oct (2 juv).

On 26 Sep a female Yellow-rumped Flycatcher *Ficedula zanthopygia* was on board briefly, and a juv Mugimaki Flycatcher *Ficedula mugimaki* on 5 Oct. Asian Brown Flycatchers *Muscicapa latirostris* were recorded on 18 Oct (8) and 6 Nov (1).

Single Yellow Wagtail *Motacilla flava* were recorded on 7 Sep, 12 Sep, 18 Sep and 10 Oct, and a White Wagtail *M. alba* on 1 Nov. Grey Wagtail *M. cinerea* were seen on 8 Sep and 18 Sep.

A Red-throated Pipit *Anthus cervinus* was fished out of the water on 25 Oct and subsequently died. Another was positively identified on 5 Nov together with others probably of the same species.

Several Brown Shrikes *Lanius cristatus* were seen during the period, including one adult and one juv on 18 Sep, two all day on 6 Oct, 12 Oct (1), and 18 Oct (1). Three Tiger Shrikes *Lanius tigrinus* were recorded on 13 Sep.

During the period 7 Aug-19 Oct WW made the following observations in the South China Sea, Yellow Sea and western Pacific:

7 Aug. Pacific Swallow. One in position 31°43′N 144°E (300′SE Honshu, Japan).

flava Wagtails on 25 Aug 50′W Korea, 31 Aug 150′SSE Hong Kong, and on 1 Sep an exhausted specimen 60′W Luzon (Philippines).

On 11 Oct, in position 8°17′S 160°30′E (20′N Malaita Is, Solomons), a Lesser Golden Plover *Pluvialis dominica* was on board for 1 hr, and also an unidentified pigeon *Ducula* sp.

On 19 Oct a Plumed Egret was on board for a few hours during an easterly gale 150′ SE Honshu, Japan.

OCEAN WEATHERSHIP LANDBIRD REPORTS 1981

By Commander M. B. Casement, R.N.

The following landbird records have been extracted from the reports of R. C. L. Aran (*Admiral FitzRoy*) and D. A. MacKenzie and M. Burns (*Admiral Beaufort*) from Station LIMA (57°N 20°W - 210nm WSW Rockall, 450nm S. Iceland) during 1981 — with my apologies for their late publication.

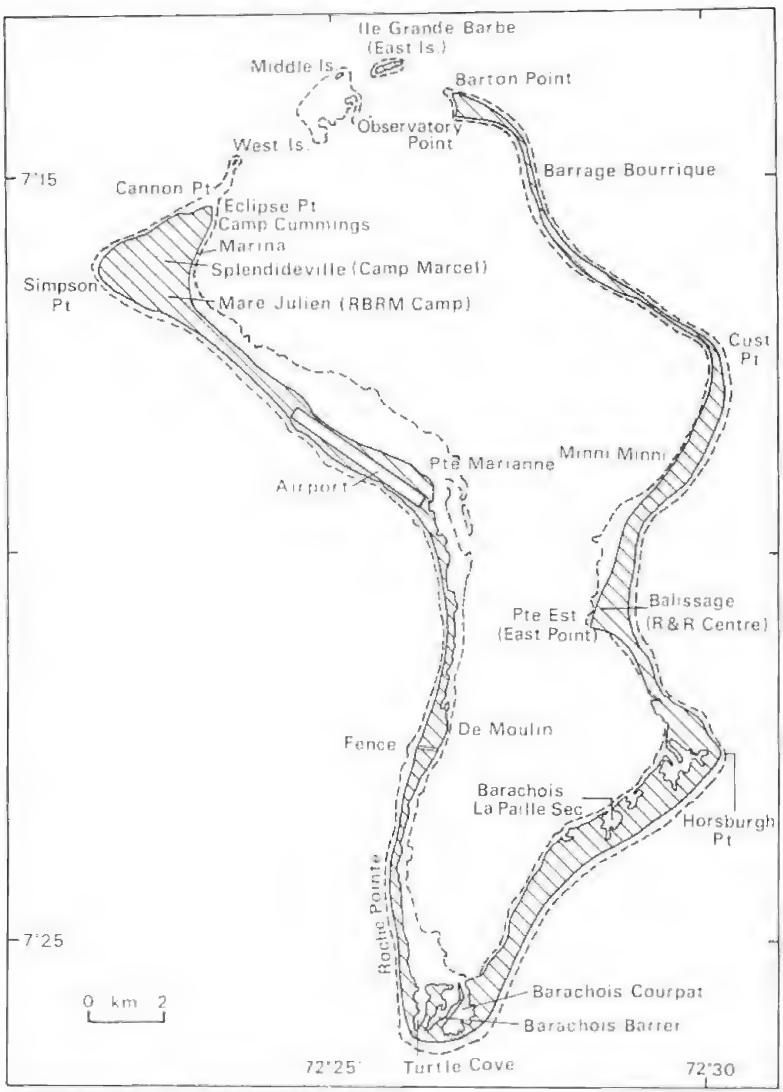
Lesser White-fronted Goose *Anser erythropus*. 24 Aug. Two settled on water 50 yards astern of ship.
Garganey *Anas querquedula*. One male on 7 June in water close alongside.
Common Scoter *Melanitta nigra*. One on 12 Nov.
Golden Plover *Pluvialis apricaria*. One on 29 Aug.
Turnstone *Arenaria interpres*. On 24 Aug. Two on board and flock of 14 flew past.
Dunlin *Calidris alpina*. One 23 Apr, 10 Jun, 13 Jun, 7 Nov.
Turtle Dove *Streptopelia turtur*. One on 12 Jun.
Tawny Owl *Strix aluco*. One on 7 Nov. Appeared out of fog and remained for 3 hours, being mobbed by Wheatears and Starlings.
Swallow *Hirundo rustica*. One on 30 May.
House Martin *Delichon urbica*. One on 31 May, two on 2 Jun.
Meadow Pipit *Anthus pratensis*. On 31 Aug one adult and one immature on board - both died. Singles on 11 and 20 Sep.
Wheatear *Oenanthe oenanthe*. Two on board exhausted 12-13 Mar. Singles on 4, 9 Sep (both probably Greenland race *O. o. leucorrhoa*), 18 Sep and 5 Nov.
Fieldfare *Turdus pilaris*. One on 6 Nov.
Redwing *Turdus iliacus*. Two on 8 Nov, one on 21 Nov.
Starling *Sturnus vulgaris*. Five on board 6-7 Nov (foggy weather).

THE BIRDS OF DIEGO GARCIA

By Leading Medical Assistant M. J. Howells, R.N.

Right in the middle of the Indian Ocean lies a bewildering little island, shaped like the outline of a footprint in the sand facing north, with three small islets in the entrance to the central lagoon to form the toes. It stretches 34 miles from tip to tip, yet at its widest point is only 1½ miles across, and at its narrowest, no more than 80 yards, see Map. It used to be a coconut plantation, but twelve years ago the inhabitants were removed, and the north-west part has now been turned into a military base, while carefully preserving much of its original appearance. Thus the airfield is still surrounded by palm trees and white beaches, while access to the remainder of the island beyond a high fence just south of De Moulin is restricted to a small number of people at weekends.

When I began a year on the island I stepped off the plane with no idea what to expect. I was amazed to find wild chickens and cats wandering around content to acknowledge each other's presence as they passed by, and given right of way on the roads. There are also a few rats, though their presence is not obvious, and over a hundred donkeys with three horses in the uninhabited part of the



Map. Diego Garcia

island. I soon found that my Commanding Officer, the British Representative Cdr. P. T. Libby, was also an amateur bird-watcher, and between May 1982 and February 1983 I made the following observations mainly around the accommodation area at Eclipse Point, with one memorable visit to the bird reserve on Ile Grande Barbe (East Island) in the mouth of the lagoon during January, for comparison with those made by A. M. Hutson during

the initial phases of the construction of the base in 1971 (*Atoll Research Bulletin* 175:1-25).

Audubon's Shearwater *Puffinus lherminieri*

This was not encountered during the period of observation, but one bird has since stunned itself flying into an umbrella in a well-lit area at Port Control at 2100 on 22 March 1983. It has been identified from a photograph.

White-tailed Tropic-bird *Phaethon lepturus*

A total of twelve were seen on various occasions at Roche Point, the southern barachois, and Barachois La Paille Sec in the undisturbed part of the island. None were encountered at Simpson Point and Point Marianne where they were reported by Hutson, which are now part of the military base.

Red-footed Booby *Sula sula*

These were only seen on the Ile Grande Barbe where there was a colony of approximately 200 adults and large juveniles in January, with only eight out of fifty chicks still retaining down. This indicates that the birds must have laid substantially earlier than in 1971, when Hutson similarly found many large young in May.

Great Frigate-bird *Fregata minor*

About thirty frigates were also flushed in January from the impenetrable thicket of *Scaevola* which covers the Ile Grande Barbe, most of which appeared to be female Great Frigates, where Hutson only identified Lesser Frigate *F. aerial* in May 1971.

Cattle Egret *Bubulcus ibis*

Although the species was only introduced in 1953 it is now common, especially around the accommodation in the north-west, where up to nine have been seen feeding together in the few small remaining areas of marsh. There is still a breeding colony of six pairs at East Point, and it can also be seen at Point Marianne, Roche Point/southern barachois, and De Moulin/Simpson Point. Although the birds were never noticed to develop golden breeding plumage and remained pure white throughout the year, nearly fully-feathered young were noticed in two places in October 1982.

Little Green Heron *Butorides striatus*

This species which was reported by Hutson to be abundant is now rarely seen. A total of 26 birds were encountered in nine months by the lagoon at the Marina, half-way between Eclipse Point and Mare Julien, and at Point Marianne. The people there report that the birds occur daily throughout the year although they only see one at a time.

Turnstone *Arenaria interpres*

Seen very commonly every day south of Point Marianne, where it usually fed with other waders on land-crabs run over on the road. Smaller numbers were also seen in all the southern barachois.

Greater Sandplover *Charadrius leschenaultii*

Seen quite commonly with other waders all over the island except beyond Simpson Point in the north-west.

Grey Plover *Charadrius squatarola*

Also seen with the previous two species at Point Marianne, on the southern barachois and at Roche Point.

[(Great) Snipe *Gallinago (media* ?)]

Snipe thought to belong to this species were seen singly and in groups of up to four in the southern barachois north to East Point on 18 occasions.

Whimbrel *Numenius phaeopus*

Considerably more widespread than the previous species, with up to eight seen feeding along the lagoon from Simpson Point to Barton Point, and the largest concentrations in Turtle Cove, Barachois Barrer and B. Courpat. One was also usually present on the marsh at the southern end of the airport, and once four.

Wood Sandpiper *Tringa glareola*

Individuals were seen fourteen times in areas where fresh water gathers after rain in and around Point Marianne, Simpson Point and De Moulin.

Common Sandpiper *Tringa hypoleucos*

Seen rather more frequently than the previous species in groups of up to eight at the same places and Mare Julien.

Sanderling *Crocethia alba*

Seen very commonly along the lagoon from East Point to De Moulin, and observed along oceanic beaches at Horsburgh and Roche Points.

Curlew Sandpiper *Calidris testacea*

One of the commonest waders, seen from Cannon Point to Barton Point on both the outer and lagoon shores.

Crab Plover *Dromas ardeola*

Small numbers seen on the southern barachois and beaches on both sides of the island from Roche Point to Cust Point, and flying down the lagoon shore at Observatory Point towards Barrage Bourrique.

[Saunder's Little Tern *Sterna (albifrons) saundersi* ?]

Small terns seen feeding close to the shore occasionally at Simpson Point, Eclipse Point, Mare Julien, south of Point Marianne and East Point Plantation were variously identified as Little Terns *S. albifrons* or Fairy Terns *S. nereis* at the time. They seem most likely to have been Little Terns of the form *saundersi* which breeds around southern Arabia and appears to winter widely in the Indian Ocean islands in different stages of winter and immature plumage. It is sometimes treated as a race of Little Tern and sometimes as a distinct species distinguished by the possession of more black on the outer primaries (W. R. P. Bourne, in litt.).

Sooty Tern *Sterna fuscata*

Only seen four times in the vicinity of Barachois La Pallese and B. Canon.

Brown Noddy *Anous stolidus*

The second commonest tern on the island, regularly seen in large numbers along the road in the south or flushed from the coconut palms along the track to East Point Plantation, but rarely found north of Mare Julien and Simpson Point.

Lesser Noddy *Anous tenuirostris*

Nearly always present with flocks of the previous species, from which it could be distinguished by its small size, lower white semi-eye-ring, and thinner bill.

White Tern *Gygis alba*

Found all over the island, with large concentrations mainly in the populated areas, notably at Eclipse Point, Camp Marcel, Mare Julien, Point Marianne, De Moulin, East Point Balissage and Barton Point, also the Ile Grande Barbe.

Indian Barred Ground-dove *Geopelia striata*

Although it was only introduced in 1960 this species is now widespread from Eclipse Point to Barton Point, with more in the populated areas listed for the last species.

Madagascar Turtle Dove *Streptopelia picturata*

Timid, and mainly seen singly or in pairs in woodland bordering the populated areas, but more numerously at Simpson Point, East Point, Minni Minni, and the southern and eastern parts of the island. Only five were detected on the Ile Grande Barbe where Hutson found it most numerous, and it may be decreasing.

Indian Mynah *Acridotheres tristis*

Only introduced in the mid-1950s, this is now the commonest landbird, although only seen infrequently north of Minni Minni, with up to a hundred occurring around construction sites.

Approximately 140 gathered to sing at dusk at Camp Marcel (Splendideville), 82 at Point Marianne, and 35 at East Point.

Madagascar Fody *Foudia madagascariensis*

This is the second commonest landbird, also found all over the island south of East Point. They are remarkably tame, and will come to feed off bread on a table out of doors while people are still sitting at it. A few birds can be found in breeding plumage at any time, but most occurred from July to September and January to March, with what appeared to be yound birds appearing at the end of each period, which suggests the occurrence of two main breeding seasons.

I am indebted to Commander Libby and Paul Goriup, Projects Officer for the International Council for Bird Protection, for assistance in starting this project, Captain C. Gaiser of the United States Army Veterinary Corps for assistance with literature, and members of Naval Party 1002 for additional records. Always questions!

Leading Medical Assistant M. J. Howells, 84 Furse Park, St Budeaux, Plymouth, Devon.

Our thanks to Dr D. R. Stoddart of the Department of Geography, Cambridge University for drawing the map to accompany this paper. Ed.

(Some earlier observations by W. F. Curtis on and around Diego Garcia and the other outlying islands of the Chagos group which are no longer permanently inhabited will be found in *Sea Swallow* 25:11-13. He found that donkeys had also been left on Boddam Island in Salomon Atoll (where Mr Howells also saw a cat earlier this year) and on Coin de Mire island in Peros Banhos Atoll (where another visitor reports the presence of pigs). Rats are also present on some of the smaller eastern islands, where M. J. D. Hirons (pers. comm.) found Masked Boobies *Sula dactylatra*, Lesser Frigate-birds *Fregata ariel* and Bridled Terns *Sterna anaethetus* among other species breeding on the Brothers in 1975, and it seems time steps were taken to remove as many of the introduced mammals as possible from these islands before they increase sufficiently to destroy the native wildlife. — W.R.P.B.)

AUTUMN MIGRATION OF LANDBIRDS OFF NORTH BORNEO IN 1981

By Captain D. M. Simpson, M.N.

In 1981 I was in command of the *Pacific Teak*, a multi-purpose support boat normally on station (90% of the time) at Tembungo Oil Terminal which lies 35 miles off the NW coast of Sabah in position 6°37′N 115°47′E. It is therefore well placed to sample migration taking place across the South China Sea to the west of Borneo (see Map). Some 35 miles E x N from the terminal is the island of Mantanani, and Mengalum Isle lies 26 miles SSW. On a fine day Borneo's highest mountain, the magnificent Mt Kinabalu (13,455 ft), can be clearly seen.

Tembungo Oil Terminal

Great Reed Warbler *Acrocephalus arundinaceus*. Commonly observed aboard ship and platform between 29 Sep and 30 Oct. Some 15 individuals were sighted and two appeared smaller in size and may have been members of a smaller race or sub-species.

Asian Brown Flycatcher *Muscicapa latirostris*.
Brown-streaked Flycatcher *Muscicapa williamsoni*. (U).
Siberian Flycatcher *Muscicapa sibirica*.

Just when I thought that I was becoming proficient in separating *M. latirostris* from *M. sibirica* Dr David Wells wrote to say *M. williamsoni* (probably a race of *latirostris*) also occurs in Borneo, as an early migrant. We had a fair number of Brown Flycatchers between 10 Aug-30 Oct. A dead bird collected on 1 Sep was definitely *latirostris*. Certainly some were *sibirica*, others could even have been females of species other than the above and a bird seen on 28 Oct was suspiciously pale with white wing bar.

White Wagtail *Motacilla alba*. A late arrival seen on 26 Oct, and a further one or two aboard the ship in the last few days of October.

Yellow Wagtail *Motacilla flava*. Another of Tembungo's mass migrants, first date 1 Sep and last date 18 Oct. Between these dates many hundreds were seen, and more than half were very pale young birds. Among the adults the races *M. f. simillima* and *M. f. taivana* were identified. A flock about 120 birds, with 300 Arctic Warblers, were wheeling around the gas flare on 19 Sep. At night these birds were separated from other wagtails by their distinctive calls.

Grey Wagtail *Motacilla cinerea*. Not nearly as numerous as *M. flava*, this species appeared earlier and several were seen prior to the arrival of that species during the period 7 Aug-1 Sep. A few Grey Wagtails were passing through in late October after the last of the *flava* wagtails.

Red-throated Pipit *Anthus cervinus*. (U) 3 pipits seen in flight on 18 Oct looked and sounded like this species. High pitched *'seep'* notes were noted. Other odd pipits were glimpsed in late October.

Brown Shrike *Lanius cristatus*. A total of some 15 birds between 10 Sep and 24 Oct, usually in ones or twos though often amongst other species.

Tiger Shrike *Lanius tigrinus*. An exhausted immature bird was collected from Tembungo platform on 30 Sep, but died later. One adult was aboard ship on 10 Oct, and two birds on the platform on 11 and 12 Oct. Another adult was seen on 23 Oct.

REFERENCE

King, B. F., Woodcock, M., Dickenson, E. C. 1975. A Field Guide to the Birds of South-East Asia. Collins, London.

Captain D. M. Simpson, 20 Heather Drive, Eskdale Park, Whitby, North Yorkshire

OBSERVATIONS OF SEABIRDS FROM H.M.S. *HECLA* DURING THE FALKLANDS CAMPAIGN APRIL - JULY 1982

By Surgeon Lieutenant-Commander D. G. Bruce,
M.B., Ch.B., M.Sc., A.F.O.M., Royal Navy

In support of the Falkland Islands Task Force, the Survey Ship H.M.S. *Hecla*, under the command of Captain G. L. Hope, Royal Navy, was designated a Hospital Ship within the terms of the Geneva Conventions. The necessary alterations were carried out in Gibraltar and the ship sailed for the South Atlantic on 20 April 1982.

The Passage South (20 April-12 May)

Shortly after leaving Gibraltar, where he had joined, the author learned of the custom in Survey ships of keeping a bridge record of wildlife observed at sea. The passage south, via Freetown Sierra Leone and Ascension Island provided many opportunities for bird observations, and the new medical officer became a regular visitor to the bridge.

Off the west coast of Africa (12°-13°N) the ship passed through several areas where flocks of birds gathered. Whatever the reason - tropical convergence or rising sea currents were two theories advanced - these flocks included Cory's Shearwater *Calonectris diomedea*, Great Shearwater *Puffinus gravis*, Madeiran Storm-petrels *Oceanodroma castro*, many hundreds of Common Terns *Sterna hirundo* and, on one occasion, 3 small gulls identified as Sabine's Gull *Xema sabini*.

Further south, bird sightings became less frequent. About 300 miles north of Ascension, however, a White-tailed Tropic-bird *Phaethon lepturus* was recorded and the following day (3 May) at Ascension Island, 4 Ascension Frigate-birds *Fregata aquila*, 1 Red-footed Booby *Sula sula*, 5 Blue-footed Boobies *Sula nebouxii* and 2 Brown Boobies *Sula leucogaster* were seen. Between 8°S and 28°S no birdlife was observed, but on 8 May at 28°42'S 29°W, in addition to a Great Shearwater our first albatross was sighted. The immature Wandering Albatross *Diomedea exulans* created considerable interest in the ship which was followed by one over the next few days.

Other birds recorded in these latitudes (28°S-45°S) included the occasional Great Shearwater, Cory's Shearwater, Sooty Shearwater *Puffinus griseus*, and at 42°S a huge flock of prions *Pachyptila* sp.). The first Cape Pigeon *Daption capensis* was seen at 45°12'S.

Giant petrels *Macronectes* sp.
and a Black-browed Albatross *Diomedea melanophris*
off the Falklands, May 1982. H.M.S. *Hecla*
Photo: Srgn. Lt.-Cmdr. D. G. Bruce

The Waiting Period (13-28 May)

During the second half of May, *Hecla*'s role became more clearly defined to that of 'tender' ship to the Hospital Ship *Uganda*, carrying treated casualties from her to Montevideo and returning with stores and extra medical personnel. This waiting period before the first trip north was spent in a 'Red Cross Box' - an area of sea set aside for hospital ships only.

Our first casualty was, however, a Cattle Egret *Bubulcus ibis* which landed on the ship during a northeasterly gale at 47°S 48°W. The egret proved an inauspicious start to our activities, for the bird died shortly after!

The areas designated as 'Red Cross Boxes' moved from time to time, but were all 30-50 miles north of the Falkland Islands at about 50°S. The birdlife was varied, but usually a few Cape Pigeons and giant petrels *Macronectes* sp. were in attendance. No attempt was made to differentiate between the two species of giant petrel as their ranges overlap in the Falkland area and their plumages are similar when the Southern species is in its dark phase.

Other species recorded during this time included solitary Magellan Penguins *Spheniscus magellanicus* twice, Yellow-billed Sheathbill *Chionis alba* three times, a single Great Shearwater and several Wilson's Storm-petrels *Oceanites oceanicus*. Cattle Egrets landed on the ship on two other occasions but fortunately left alive, as did two sheathbills and two Wilson's Storm-petrels.

The Montevideo Passages (29 May-30 June)

Between late May and the end of June *Hecla* made three round trips between the *Uganda* and Montevideo. The changing species observed provided continuing interest during each of the six journeys but it was noticeable how they avoided the ship in rough weather or in mist.

Penguins *Spheniscidae*

Two single King Penguins *Aptenodytes patagonica* were observed on 13 June at about 47°S 58°W and were the only King Penguins seen during the entire deployment, and identified by their size and bright orange patches on the sides of the head. Magellan Penguins were occasionally seen near to the Falklands but were also observed on 24 June at 37°S 54°W, close to the northern edge of their range as delineated by Tuck (1978).

Albatrosses *Diomedeidae*

Wandering Albatrosses were recorded on several occasions between 46°S and 38°S. All were in an 'intermediate' phase and were usually solitary. The Black-browed Albatross *Diomedea melanophris* was a more constant companion and was seen regularly in varying numbers at all latitudes between the Falklands and the entrance to the Rio de la Plata (36°S 55°W).

Petrels and Shearwaters *Procellariidae*

North of the immediate vicinity of the Falklands where they were very common, Giant Petrels were seen only rarely and were not recorded north of 45°S. By contrast, Cape Pigeons were observed frequently on all trips and at all latitudes. Flocks of Prions were noted twice in early June at 42°S 55°W and 38°S 55°W. No attempt was made to differentiate between species in the field.

One Cory's Shearwater was recorded on 1 June at 38°S 55°W and Great Shearwaters were seen twice at 39°S 56°W and 40°S 56°W. At sea, the well defined dark crown of the Great Shearwater made it readily distinguishable from the generally similar Cory's Shearwater. Sooty Shearwaters were observed on six occasions between 39°S and 42°S.

On passage between the Falklands and Montevideo, the most commonly recorded bird was the Schlegel's Petrel *Pterodroma incerta*. From 47°S to the Rio de la Plata these neat, easily identified petrels were seen almost daily, singly or in flocks of up to about a hundred. Storms or mist kept them away and their return, as they circled the ship, usually heralded better weather.

In the evening of 24 June at 38°S 55°30′W several large flocks of an all-dark petrel-like bird were observed flying westwards. They were unlike Sooty Shearwaters. Doubt remains on what species these were, as the visibility was not good.

Storm-petrels *Hydrobatidae*

Wilson's Storm-petrels were recorded twice, at 41°S and 42°S.

Gulls *Laridae*

The Southern Black-backed Gull *Larus dominicanus* was abundant in the Rio de la Plata and was once seen about 150 miles from land at 38°S. Near to the Falklands these gulls were seen twice but each time within a few miles of land. A small gull, which may have been the Patagonian Black-headed Gull *Larus maculipennis* was observed on two occasions, at 48°S and 45°S far out to sea - hundreds of miles from the nearest land.

Skuas *Stercoraridae*

Single Southern Great Skuas *Catharacta skua* were recorded twice in late May at 46°S 57°W and 40°S 55°W.

Other Species

The only other species observed at sea during this period were a Cattle Egret on 27 May at 47°S 58°W and a sheathbill on 13 June at 48°S 57°W.

During June *Hecla* entered Falkland Sound on three occasions to transfer casualties and stores. Small groups of Magellan Penguins were seen on each visit, and one pure white Southern Giant Petrel *Macronectes giganteus* was noted on the 12 June. King Cormorants *Phalacrocorax albiventer* and Southern Black-backed Gulls were also seen each time.

The Return to Gibraltar (29 June-22 July)

The first few days of the homeward journey were the stormiest experienced but on 1 July at 47°S 49°W, two Black-browed Albatrosses, 1 Grey-headed Albatross *Diomedea chrysostoma*, two Cape Pigeons and a Southern Fulmar *Fulmarus glacialoides* appeared, to portend better weather. Later that day giant petrels, 2 Schlegel's Petrels, and a Grey-backed Storm-petrel *Garrodia nereis* which flew alongside of the ship were also seen. As the ship progressed, a Wandering Albatross and prions appeared briefly, but apart from the occasional Cape Pigeon, Schlegel's Petrels were again the most constant companions, remaining with the ship until about 33°S.

Between 33°S and Ascension Island no birds were recorded. The absence of records in this area during the southbound passage could have been explained by lack of observations, but no such excuse pertained on the northbound journey! At Ascension Island on 11 July, 4 Ascension Frigate-birds, 10 Blue-footed Boobies and 10 Brown Boobies were observed.

The last ten days to Gibraltar were rather disappointing for bird life. Madeiran Storm-petrels were identified at 22°N 15°W and 35°N 7°W. A pair of Herring Gulls *Larus argentatus* at 26°N 15°W and a lone Manx Shearwater *Puffinus puffinus* at 20°N

11°W completed our observations. H.M.S. *Hecla* returned to Gibraltar on 22 July and arrived home in Plymouth on 29 July 1982.

Acknowledgements

The author would like to acknowledge the help and encouragement of Captain Hope, Royal Navy, and all the Officers of the Watch in H.M.S. *Hecla*. Not only did they record observations themselves, but would have the author summoned to the bridge in the event of a new or strange species or to settle an altercation over identification. They have my grateful thanks.

Tuck and Heinzel's *Field Guide to the Seabirds of Britain and the World* was the main guidebook used for identification at sea. It was found to be of inestimable value.

Surgeon Lt.-Cmdr. D. G. Bruce, R.N., 13a High Street, Old Portsmouth, Hants. PO1 2LP.

SEABIRD OBSERVATIONS FROM SIX PACIFIC OCEAN CROSSINGS

By P. and K. Meeth

Between 1975 and 1981 we had the opportunity to make voyages by vessels of the Dutch shipping group Koninklijke Nedelloyd in order to observe and record seabirds. During this time we made six Pacific Ocean crossings by the following ships:

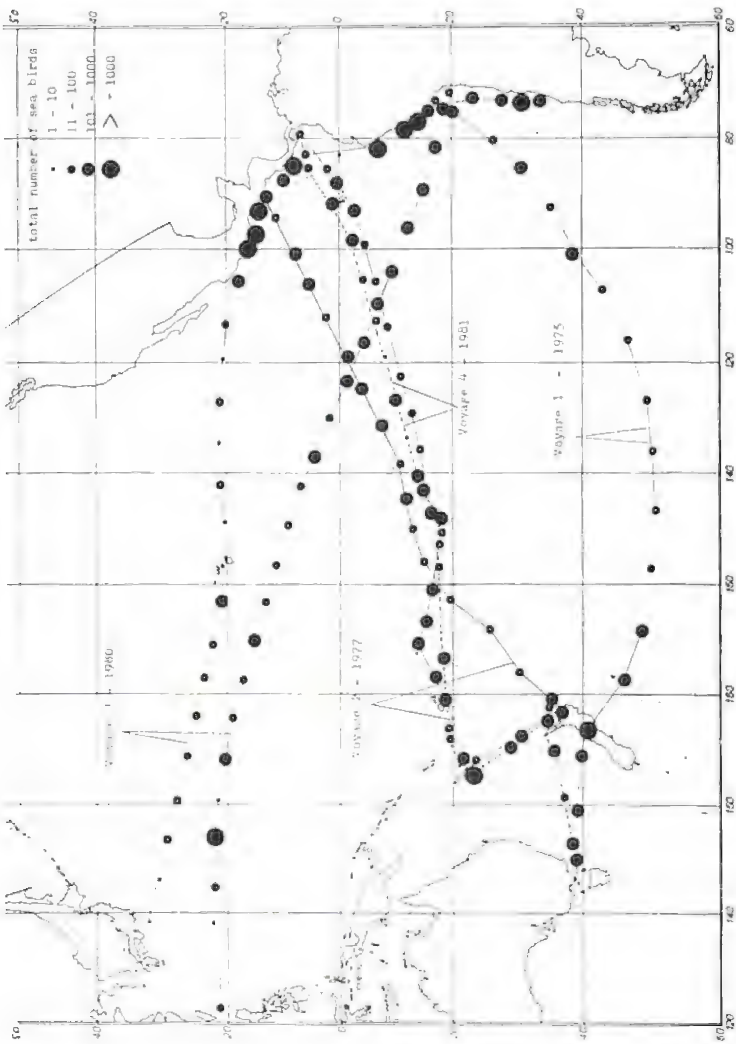
1975 Voyage 1 m.s. *Nedlloyd Main*. Departing Melbourne on 21 November via Cook Strait to Matarani, Peru, calling at Callao en route to the Panama Canal.

1977 Voyage 2 m.s. *Nedlloyd Adelaide*. Departing Panama on 21 November via Papeete (Tahiti), Apia (Western Samoa), Suva and Lautoka (Viti Levu, Fiji Islands), and Noumea (New Caledonia) to Tauranga (New Zealand). Returning eastwards the ship left Whangarei 19 October direct to Acajutla (El Salvador) arriving at the Panama Canal on 6 November.

1980 Voyage 3 m.s. *Nedlloyd Streefkerk*. Departing from Kobe on 6 February direct to Manzanillo (Mexico), passing the Hawaiian Islands between Maui and Hawaii. After Manzanillo the vessel called at ports in Central and South America before returning from Iquique direct to Kaohsiung (Taiwan) arriving on 26 April.

1981 Voyage 4 m.s. *Nedlloyd Westerkerk*. Passing the Panama Canal on 25 November and crossing via Papeete, Suva and Noumea to Whangarei arriving on 21 December. The vessel sailed from Whangarei on 26 December and passed Bass Strait on 30 December en route to Africa.

The Pacific Ocean routes, based on the vessels' noon positions, are shown on the Map.



Map. Noon positions indicating total daily sightings of seabirds.

We observed daily, recorded and, weather permitting, sketched and photographed seabirds from 0800 to 1200 and 1400 to 1700. Often we started earlier and/or carried on after 1700. During the six Pacific Ocean crossings we were 138 days at sea, spending about 1,000 hours birdwatching and logging quantitative counts every 5 minutes. In total we recorded over 100,000 seabirds. The density and distribution of these records are shown for the

noon positions on the Map, excluding 65,000 Short-tailed Shearwaters seen in the Tasman Sea and Bass Strait on 30 December 1981 and most of the offshore birds like Franklin's Gulls, terns, cormorants and Peruvian Boobies. Daily average voyage figures would have been greatly inflated by the high numbers of birds along the Central and South American coasts as well as in Cook Strait and eliminating these records gives a more realistic picture of the density and pelagic distribution as shown.

	Passage time (days)	Distance (n. miles)	Speed (knots)	Number of Seabirds	Daily Average	Seabirds per linear mile
Voy 1 Eastbound	16	1960	ca 17.5	2155	135	0.91
Voy 2 Westbound	20	2492	17.8	4045	202	1.62
Voy 2 Eastbound	15	1848	17.6	1855	124	1.00
Voy 3 Eastbound	17	2035	17.1	790	46	0.39
Voy 3 Westbound	24	2948	17.6	5645	235	1.91
Voy 4 Westbound	21	2614	17.8	4595	219	1.76
Total	113	13897		19085	169	1.37

During all these days transitting the Pacific only on 2 days was the sea birdless, namely on 9 December 1981, 180 miles NE of Aitutaki Atoll and next day 280 miles NE of Niue.

The following notes selectively summarise our observations where these may add to existing distribution data, and discuss some aspects of identification.

Notes on selected species.

Waved Albatross *Diomedea irrorata*

The majority of these albatrosses were seen off the Peruvian coast. On 10 Mar 80 near the Islas Lobos de Afuera we counted more than 450 birds, with a day total count of 580.

Shy Albatross *Diomedea cauta*

During Voy 1 we logged 64 birds of which 37 belonged to the New Zealand race *D. c. salvini* and 7 to *D. c. eremita* of the Chatham Islands. On 14 Mar 80 we recorded 1 off Isla San Gallan, about 60 miles S of Callao, whilst another 9 were sighted off Valparaiso on 20 Mar. About 270 miles S of Antofagasta on 25 Mar we again observed 9 of this species. On 30 Dec 81 we noticed 7 Shy Albatrosses and photographed one immature banded with a red ring. The secretary of the Australian Bird-banding Scheme informed us that this bird had been banded as a nestling some time between 30 Dec 80 and 14 Jan 81 on Albatross Island, NW Tasmania.

Yellow-nosed Albatross *Diomedea chlororhynchos*

On 30 Dec 81, 58 birds counted 80 miles SW of Melbourne.

Southern Fulmar *Fulmarus glacialoides*

On 9 Dec 75 one sighted about 200 miles S of Callao, 15°S.

Cape Pigeon *Daption capensis*

The northernmost sighting was recorded at 5°45'S, about 220 miles S of Guayaquil on 12 Dec 75.

Antarctic Petrel *Thallassoica antarctica*

This petrel was sighted on 26 Nov and another one on 28 Nov 75. The Antarctic Petrel is normally confined to the antarctic zone of surface water and is scarcely known from northward of latitude 50°S. Our mid-ocean records were logged at 48°S.

Blue Petrel *Halobaena caerulea*

During the South Pacific transit in 1975 about 150 Blue Petrels were recorded, of which 30 were seen on 6 Dec when our ship approached the Humboldt Current in latitude 20°S.

Wedge-tailed Shearwater *Puffinus pacificus*

More than 1,700 Wedge-tailed Shearwaters were counted:

Voy 2 271 of which 175 were *P. p. cuneatus*
Voy 3 1046 of which 930 were *P. p. cuneatus*
Voy 4 385 all *P. p. pacificus*.

The light-phase subspecies was mainly recorded off the Central American coast between Manzanillo and Puntarenas. This range is apparently the wintering area of the Hawaiian breeding birds. Great numbers were in moult.

Wedge-tailed Shearwaters *drawn by* K. Meeth

Grey-backed Shearwater *Puffinus bulleri*

As could be expected, large numbers were counted between Whangarei, the Poor Knights and Cape Brett, North Island, N.Z. In Mar 80 we saw large groups in the Humboldt Current along the Chilean coast between Valparaiso and Antofagasta. The birds were

sitting on the water and flew away before the ship could reach them.

Short-tailed Shearwater *Puffinus tenuirostris*

On 21 April 80 we counted about 1,670 Short-tailed Shearwaters at about 690 miles NE of Guam, all flying northwards. In comparison with the Sooty Shearwater *Puffinus griseus*, which has a clear silvery underwing pattern, we find the underwing of the Short-tailed Shearwater only partly a little pale. Moreover, we think that the latter species give a more bulky impression.

Christmas Shearwater *Puffinus nativitatis*

Sixteen were seen between the Equator and 20°S. This shearwater resembles a small Wedge-tailed Shearwater with a short tail. It is larger than the Bulwer's Petrel *Bulweria bulwerii* which is found in the same area. We consider the flight slow, whereby the bird swings in various directions.

Black-vented Shearwater *Puffinus p. opisthomelas*

Large numbers were seen off Acajutla, about 400, on 3 Nov 77 and 130 on 4 Mar 80 in the same region.

Newell's Shearwater *Puffinus p. newelli*

After departure from Apia proceeding to Fiji on 19 Sep 77 we observed 5 Manx Shearwater species with the characteristics of *P. p. newelli*. The two white spots on the back near the flanks were conspicuous. We wonder, however, whether this feature is diagnostic since we once photographed a Hutton's Shearwater *P. p. huttoni* showing the same pattern.

White-headed Petrel *Pterodroma lessoni*

During the crossing from Cook Strait to Peru in 75 we counted 157 White-headed Petrels along the great circle route from 25 Nov to 28 Nov, 12 on 29 Nov, one on 30 Nov and one on 1 Dec. On 29 Dec 81 we logged small numbers in the Tasman Sea.

Mottled Petrel *Pterodroma inexpectata*

This petrel did not give us identification problems as the underwing pattern of an almost straight diagonal dark leading margin running from the carpal to the abdomen is very conspicuous. The greyish patch on the belly is variable. We sighted 9 Mottled Petrels between 10 and 18 April 80.

Tahiti Petrel *Pterodroma rostrata*/
Phoenix Petrel *Pterodroma alba*

As it is difficult to separate these two species in the field, we deal with our observations under one heading. In total we saw 109 petrels we identified as Tahiti Petrels, 11 as Phoenix Petrels and 21 as Tahiti/Phoenix.

Hawaiian Petrel *Pterodroma phaeopygia*

This breeding bird of the Galapagos and Hawaiian Islands is considered to be an endangered bird by the I.C.B.P. (King 1981). In Sep 77 we saw 20 birds before and just after passing the Galapagos. On 3 April 80 we recorded 44 of this species about 700 miles WSW of Callao.

Black-winged Petrel *Pterodroma nigripennis*

During Voy 2 Oct 77 and Voy 3 April 80, 3 and 26 respectively were seen in the east central Pacific. On Voy 4 during Dec 81 we counted 84, of which at least 8 were recorded a few hours before arrival at Noumea between Isle Mare and Canal de Havannah. Only recently, Dec 71, breeding of this petrel was discovered by R. de Naurois, who found several hundreds of breeding pairs on islets of the reef S of Noumea, (de Naurois 1978). During the morning and afternoon of 28 Dec 81, in the central Tasman Sea, the ship was accompanied by Black-winged Petrels, varying in numbers from a few to more than 20. It was fascinating to watch their display flights.

Bonin Petrel *Pterodroma hypoleuca*

We sighted 8 Bonin Petrels on 12 Feb, 4 on 12 Apr and 1 on 13 Apr 80. We think these petrels are rather easy to identify by the underwing pattern, which resembles somewhat the underwing of the Laysan Albatross *Diomedea immutabilis*.

Cook's Petrel *Pterodroma cookii*

In 1975 we saw more than 160 Cook's Petrels, in 1977 we noted 24, in 1980 more than 165 but in 1981 only 16. The majority were seen near the South American coast. These birds probably belong to the breeding colony of the Juan Fernandez Islands, *P. c. defilippiana*.

Between 1 and 7 Apr 80 we recorded 82 Cook's Petrels, 26 Black-winged Petrels and 11 Gould's Petrel between 75° and 120°W. These 3 species are separable in the field, if circumstances are favourable. The Cook's Petrel's upperparts are very similar to those of the Black-winged Petrel, but overall a little lighter, particularly on the head and face. The underwing of Cook's is almost entirely white, with the exception of a very thin dark leading margin, whereas the underwing of the Black-winged shows a conspicuous dark margin to the leading edge and to the trailing edge. The dark eye patch is smaller than that of Cook's and the grey of the neck and nape continues to the upper breast. The sooty black head of Gould's Petrel is very conspicuous and distinguishes it from Cook's and Black-winged Petrel. The dark trailing margin of the Black-winged is thicker and more pronounced than in the underwing of Gould's Petrel. The above characteristics can often be seen quite clearly, making identification possible.

Gould's Petrel *Pterodroma leucoptera*

The Gould's Petrel, breeding bird of Cabbage Tree Island, Australia, is also included in the Red Data Book, as "rare". In 1977 we recorded 126 *P. leucoptera* of which 46 were seen on 4 Sep and 29 on 29 Oct. From the distribution map it can be seen that the majority were logged between 100°W and 130°W and between 0°S and 10°S. In general, these birds moved in a south to southwest direction. The distribution map in the *Field Guide to the Seabirds* (Tuck 1978) does not show Gould's Petrels E of 140°W. We suppose that these gadfly-petrels, which we identified as *P. l. brevipes*, belong to the breeding colonies of the New Hebrides and the Fiji Islands. On 18 Dec 81 our ship sailed from Noumea, disembarked the pilot in Dumbéa Passage at 1303 and followed a SE course along the Grand Récif Aboré till 1400 and the Grand Récif Kue from 1400 onwards. From 1320 to 1410 we counted about 935 Gould's Petrels and from 1410 to 1730 recorded small numbers, totalling 164. All these petrels were seen along a route of approximately 70 miles. René de Naurois (1978) has proved the breeding of *P. leucoptera* in New Caledonia but no numbers are given.

On 29 Dec we counted 53 Gould's Petrels at 120 miles SE of Cape Howe, Tasman Sea.

Stejneger's Petrel *Pterodroma longirostris*

On 5 Dec at 25°S 81°W we sighted several Cookilaria petrels which we were unable to identify. They looked rather small, grey-brown upperparts with an open M-marking and a white underwing with an inconspicuous dark leading and trailing edge. The bill was longer than that of Cook's or Gould's Petrel. In the first instance we were thinking of Gould's but these are unknown from this area. Moreover, the underwing pattern did not fit, whilst the crown, nape and sides of neck were not sooty black but dark grey. Eventually we came to the conclusion that these petrels were Stejneger's Petrels, breeding birds of the Juan Fernandez Islands, where Cook's and White-necked Petrels also breed, of which 8 and 11 respectively were seen on the same day. In 1977 we saw 9 petrels and another 7 in 1980 in the Central Pacific, which we thought to be Stejneger's Petrels. We found them small, with light grey upperparts and broad, rather short tails. There was a thin, dark open M-marking. The underwing margin to the leading edge was smaller and thinner than in *P. leucoptera*. Crown, nape and sides of neck were, however, of the same colour as in *P. leucoptera*. On 2 April 81 at 17°S 81.5°W we recorded and photographed similar birds as seen in 1975. Now we counted 5 of these petrels and again the rather long, slightly bended bill was noticeable.

Fork-tailed Storm-petrel *Oceanodroma furcata*

This light greyish storm-petrel, with a kind of white flash on the underwing and forked tail, was seen on 8 Feb 80 at 30°N

153.5°E and another 2 next day at 28.5°N 161°E. These records are rather far south, although there are records from the Vulcano and Bonin Islands.

Sabine's Gull *Xema sabini*

Sabine's Gulls were seen along the South American coast as well as the Central American coast. The most southerly observation was recorded on 5 Dec 75 at 20°11′S, 740 miles NW of Valparaiso. More than 200 were counted at 220 miles SSW of Guayaquil and on 4 Mar 81 we observed 14 which were in moult, in the harbour of Acajutla.

Swallow-tailed Gull *Creagrus furcatus*

Sailing from Callao to Matarani on 14 Mar 81, noon position 13°06′S 76°53′W, we counted 1,346 Swallow-tailed Gulls, of which 1,310 were recorded between Isla San Gallan and Isla Viejas.

Acknowledgements

We are much indebted to the Koninklijke Nedlloyd, Rotterdam and in particular to the Captains, Officers and crew of the ships who gave us all possible assistance during the voyages.

REFERENCES

Harper, P. C. and Kinsky, F. C. 1978. Southern Albatrosses and Petrels. Price Milburn. Wellington.

King, Warren B. 1981. Endangered Birds of the World. The I.C.B.P. Bird Data Book. Smithsonian Institution, Washington D.C.

de Naurois, R. 1978. Procellariidae reproducteurs en Nouvelle-Caledonie pendant l'ete austral. C.R. Acad. Sc. Paris t. 287:269-271.

Tuck, G. S. and Heinzel H. 1978. A Field Guide to the Seabirds of Britain and the World. Collins. London.

P. and K. Meeth, Bramenlaan 5, 2116 TR Bentveld, The Netherlands.

THE APPEARANCE AND CLASSIFICATION OF THE *COOKILARIA* PETRELS

By Dr W. R. P. Bourne

A group of small, more or less migratory, grey and white petrels with a dark "inverted W" on the back which replace each other at different seasons in different parts of the Pacific have long been a by-word for difficulty of classification and identification. Since they were discovered during Cook's voyages two hundred years ago they have first been referred to a single variable species *Pterodroma cookii*, then to a separate subgenus *Cookilaria* including about a dozen species and races, and finally shown by Sir Charles Fleming to include two parallel radiations of similar species of much the same size (Table 1) which differ in their anatomy (*Emu*

41: 69-80). Since P. Meeth has now supplied photographs of several of them, it may be useful to show a series illustrating the comparative appearance of the back and underparts, which have been prepared by Andy Lucas.

The *hypoleuca* superspecies

The simplest situation appears to be found in three heavily-built forms with pink legs and feet but dark tips to the toes sometimes treated as races of the Bonin Petrel *Pterodroma hypoleuca,* although they appear sufficiently distinct to rank as separate species. They differ from the remainder on anatomical grounds, notably the more solid structure of the skull, in which they resemble the larger capped petrels of the *Pterodroma hasitata-cahow-phaeopygia-externa-baraui* group, differing from them mainly in being adapted to take smaller foods.

They are represented here by the Black-winged Petrel *P. nigripennis* (Figs. 1a and b). It will be seen that compared with the

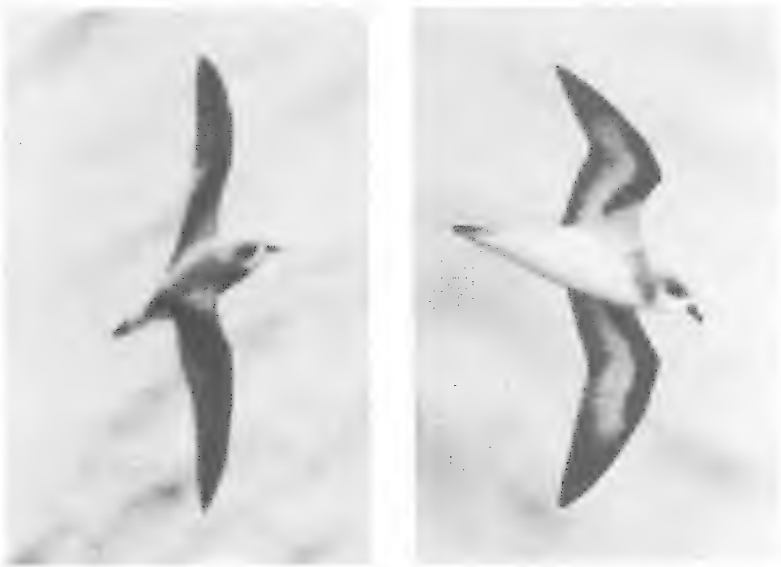


Figure 1a and b. Upper and lower sides of the Black-winged Petrel *Pterodroma nigripennis.* Note heavy build and darker ear-coverts and leading edge of underwing. Taken by P. Meeth in south-west Pacific.

other forms shown it has a comparatively solid body and broader wings with more contrasting dark ear coverts, and a dark bar along the front edge of the underwing. It breeds in the local summer in the area north of New Zealand, where it has recently expanded to colonise the Chatham Islands and eastern Australia, and disperses north across the equator in the winter. It is replaced over cooler surface water in the same part of the South Pacific by the rare

Chatham Petrel *P. axillaris*, which has greyer upperparts and a more extensive dark bar across the underwing extending into the armpit, and in the North Pacific by the numerous Bonin Petrel *P. hypoleuca*, which has a darker back with pale feather edges and a longer tail, and continues to nest at the same time on coral islands in the local winter.

The subgenus *Cookilaria*

The remaining forms belonging to the main *Cookilaria* assemblage appear to involve an earlier, but now more advanced, development of the same stock distinguished by their small size and lighter build, notably of the skull, and bluish legs and feet with the dark pigment restricted to the outer margins and toenails. They include a number of forms breeding in the South Pacific and sometimes undertaking long movements to the north and east, while fossil bones have also recently been discovered at Aldabra in the Indian Ocean. They show a similar variation of the upperparts to the previous group, becoming darker from south to north, but where the distribution of the two groups overlaps they have whiter underwings (Figs. 2-4a and b), so that one form is sometimes known as the White-winged Petrel.

Figure 2a. Upper side of Cook's Petrel *Pterodroma cookii*. Note pale grey crown and back. Taken by P. Meeth east of New Zealand. Figure 2b, underside of similar Defilippe's Petrel *P. defilippiana*. Note extremely white underwing and proportionately short wing but long tail. Taken by W. R. Millie at San Ambrosio Island.

The most southerly forms occurring over cool water are very similar in their general appearance above to the Chatham Petrel, with grey backs, but have almost pure white underwings (Figs. 2a and b). Cook's Petrel *P. cookii* itself breeds on large islands which it visits by night off New Zealand, and undertakes immense movements east to South America and north to the Aleutians, where what appear to be young birds were described as a race *P. c. orientalis*. A more sedentary population breeding earlier in the spring on small islands which it visits by day at the Juan Fernandez and Desventuradas Islands off Chile has also traditionally been treated as a race of Cook's Petrel, but since despite the similarity of its markings it differs in having a more massive bill and proportionately short wing and long tail as well as its habits it is treated as a distinct species Defilippe's Petrel *P. defilippiana* by C. Jouanin and J. Mougin in the latest edition of Volume 1 of Peters' *Birds of the World*.

The other forms become increasingly dark on the head, back and anterior edge of the underwing over warmer surface water, extreme individuals becoming entirely dark, and the normal range of variation is shown in Figures 3 and 4. Pycroft's and Stejneger's Petrels *pycrofti* and *longirostris* (Fig. 3) breed close to members of

Figure 3a and b. Upper and lower sides of Stejneger's Petrel *Pterodroma longirostris*. Note increasingly dark crown and leading edge of underwing. Taken by P. Meeth in S.E. Pacific. White mark on wing may be due to moulted primary ?

the preceding *cookii* group on islands off New Zealand and Juan Fernandez respectively, but appear to feed over warmer surface water and migrate to lower latitudes of the North Pacific, and are sometimes treated as a species under the second name. The New Caledonian and Gould's Petrels *caledonica* and *leucoptera* show more dark markings, breed around New Caledonia and off eastern Australia respectively, appear to winter in the eastern tropical Pacific, and are also sometimes treated as a species under the

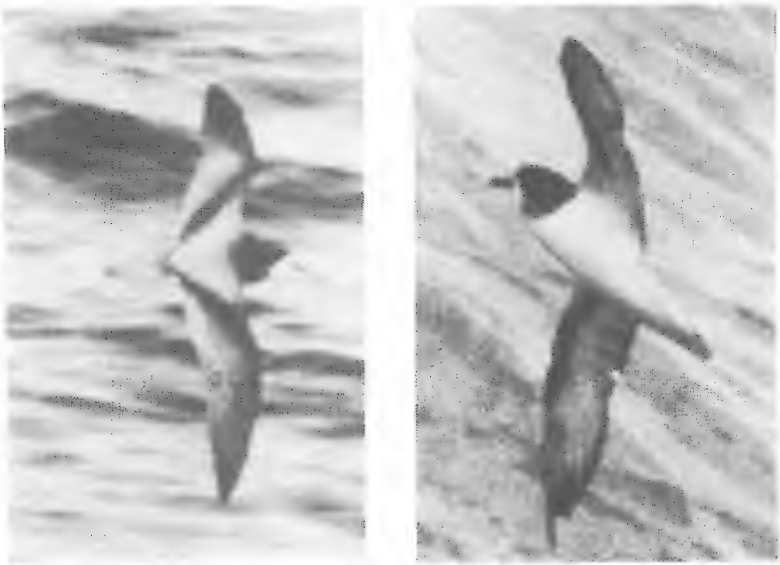


Figure 4a and b. Upper and lower side of Gould's Petrel *Pterodroma leucoptera*. Note greater amount of dark on head, neck, and anterior border of underwing. 4a taken by P. Gould and 4b by P. Meeth in east tropical Pacific; 4b is growing an outer primary and a secondary.

second name (M. J. Imber and J. A. F. Jenkins, *Notornis* 28:149-160). Finally a series of variable and still inadequately-studied dark populations which appear to be sedentary in the tropical west Pacific are also sometimes treated as a further species, the Collared Petrel *P. brevipes*.

Considerations affecting classification

The classification of all these birds presents considerable difficulties which have seldom been discussed clearly by the various people who have expressed opinions on the matter. Certain points seem clear. In the first place, the members of the main *hypoleuca* and *Cookilaria* series certainly appear to show considerable anatomical differences, especially in the skulls (all of which I have now seen), so that there seems no doubt that they are distinct,

though it seems possible that they may interact, with the result that they show divergence in such characters as the markings of the underwing and bill form.

Secondly, a pair of forms in each group which have commonly been treated as races of the same species, namely *hypoleuca* and *nigripennis* in the first case, and *cookii* and *defilippiana* in the second, also differ in both their habits and proportions (Table 1), so that they are also possibly best treated as distinct species.

Thirdly, three pairs of closely-related forms appear to breed close to each other without mixing, indicating that they are genetically distinct, including *axillaris* and *nigripennis* in the Chatham Islands, *cookii* and *pycrofti* off northern New Zealand, and *defilippiana* and *longirostris* in the Juan Fernandez group, which suggests that they should also be treated as distinct species.

Taking these considerations together, the three members of the *hypoleuca* group, the Bonin, Black-winged and Chatham Petrels *P. hypoleuca, P. nigripennis* and *P. axillaris*, and the two rather distinct southern Cookilarias, Cook's and Defilippe's Petrels *P. cookii* and *P. defilippiana*, are all clearly good species because they either show marked differences in appearance, structure and habits from their nearest allies, or occur alongside them without interbreeding.

On the other hand, the other half-dozen forms in the *Cookilaria* group show a more continuous range of variation in their appearance and habits from the pale, migratory forms usually treated as one species Stejneger's Petrel *P. longirostris* with a race *pycrofti* through the darker form usually treated as a second species Gould's Petrel *P. leucoptera* with a race *caledonica* recently described from New Caledonia to the small, melanistic Collared Petrel *P. brevipes* of the tropical west Pacific possibly also represented by a larger undescribed form in the Solomons which is often also treated as a species, though it seems doubtful if it is easy to draw such distinctions here, and possible that it might be better to follow earlier authors such as R. C. Murphy (*Amer. Mus. Novit.* 370) who treated them all as races of the "White-winged Petrel" *P. leucoptera*, in the way set out in Table 1.

TABLE 1. AVERAGE DIMENSIONS OF *HYPOLEUCA* AND *COOKILARIA* PETRELS

	No.	*Wing*	*Tail*	*Culmen*	*Tarsus*	*Toe*
Hypoleuca group:						
Chatham Petrel *P. axillaris*	15	214	97	24.1	30.5	37.4
Black-winged Petrel *P. nigripennis*	35	219	105	24.2	30.1	34.2
Bonin Petrel *P. hypoleuca*	22	228	116	25.1	29.3	35.4
Subgenus *Cookilaria*:						
Defilippe's Petrel *P. defilippiana*	22	231	104	29.2	30.2	33.7
Cook's Petrel *P. cookii*	30	234	92	26.7	30.5	37.8
White-winged Petrels *P. leucoptera ?*						
Stejneger's Petrel *longirostris*	10	219	100	24.8	27.8	34.4
Collared Petrel *brevipes*	33	216	98	23.6	26.9	32.9
Pycroft's Petrel *pycrofti*	10	215	92	23.7	29.4	34.3
New Caledonian Petrel *caledonica*	6	226	94	25.7	30.2	35.7
Gould's Petrel *leucoptera*	15	225	96	24.7	29.5	35.5
Makivas, San Cristobal, Solomons	1	230+	98	26	30	38

IDENTIFICATION OF GIANT PETRELS *MACRONECTES* Spp.

By Stephen Hunter

INTRODUCTION

Giant petrels are large surface-nesting members of the family *Procellariidae*. Only one form, *Macronectes giganteus* (Gmelin) was recognised until Bourne & Warham (1966) showed that two sibling species existed. They distinguished them, using a number of criteria: plumage, bill colour, distribution, timing of the breeding cycle and failure to interbreed when they occurred together. A number of workers including Warham (1962), Voisin (1968, 1976), Johnstone (1971, 1974), Conroy (1972) and Conroy, Bruce & Furse (1975), have written about plumages and other identification criteria but it has become obvious that different populations exhibit different characteristics, complicating their identification.

The aim of this paper is to offer a guide to the identification of these two forms to encourage more observers to try to identify giant petrels to the species level, especially at sea, and thus obtain more data on their comparative status and distribution.

DISTRIBUTION

M. halli breeds at relatively few localities. There is one South Atlantic breeding population, at South Georgia, and breeding groups in the southern Indian Ocean at the Prince Edward Islands, Iles Crozet and Iles Kerguelen. Off New Zealand this species breeds at Macquarie Island, Campbell Island, the Aukland Islands and the Chatham Islands. They now seem to have disappeared from Stewart Island (C. J. R. Robertson, pers. comm.).

M. giganteus is the commoner species and considerably more widespread. It breeds sympatrically with *M. halli* at South Georgia, and the Prince Edward, Crozet and Macquarie Islands. It also breeds at many sites on the Antarctic Peninsula and at a few places on the Antarctic Continent as well as at all the island groups of the Scotia Arc and at Bouvetoya, Heard and McDonald Islands, the Falklands, Isla de los Estados (Staten Island), Diego Ramirez Island and at a recently discovered site off Chubut Province, Argentina (P. S. Humphrey, pers. comm.).

A few giant petrels nest at Gough Island but show intermediate characteristics and their status is still not fully resolved. Their breeding schedules and some plumage features are similar to some *M. halli* populations, whilst their bill colour is like that of *M. giganteus* (see later). Voisin & Bester (1983) regard them as *M. giganteus*, contrary to Bourne & Warham (1966) and Bourne who still regards them as *M. halli*. (pers. comm.).

Although there is some distinction in breeding localities between the more southerly *M. giganteus* and the more northerly

M. halli there is a mixing of immatures and non-breeding birds. Thus birds of both species have been identified as far north as the Tuamotu Archipelago, Australia, New Zealand, South Africa, Peru and Uruguay (Hunter, unpubl.). In addition *M. halli* have been identified as far south as Signy Island, the South Orkneys (pers. obs.) and Anvers Island (Parmalee, Fraser & Neilson, 1977).

There are two records of birds from the Northern Hemisphere: one bird occurred at Midway Atoll in December 1959, 1961 and 1962 (Fisher, 1965) and a bird was seen off north-west France in October 1967 (Meeth, 1969). This latter record probably involved an adult *M. giganteus* (Bourne, 1982). Two other possible records in the North Atlantic (King, 1982; Verrall, 1982) are discussed by Bourne (1982).

BREEDING SEASONS

There is variation in the timing of breeding at different localities, mainly due to differences in latitude (Murton & Westwood, 1977). However, at all sites where the two species breed together *M. halli* lays about six weeks ahead of *M. giganteus*. Table 1 gives the breeding dates of birds from selected localities.

TABLE 1.

BREEDING DATES OF GIANT PETRELS AT SELECTED LOCALITIES

Species	*Locality*	*Laying dates*	*Reference*
M. halli	South Georgia	23 Sep-10 Oct	Hunter (unpubl.)
	Marion Island	10 Aug-1 Sep	Burger (1978)
	Iles Crozet	16 Aug-5 Sep	Voisin (1968)
	Macquarie Island	11 Aug-6 Sep	Johnstone (1978)
	Antipodes Islands	*c.* 25 Aug-7 Sep	Warham & Bell (1979)
	Gough Island	August	Bourne & David (1981)
M. giganteus	South Georgia	30 Oct-24 Nov	Hunter (unpubl.)
	Signy Island	4 Nov-26 Nov	Conroy (1972)
	Anvers Island	2 Nov-26 Nov	Parmelee *et. al.* (1979)
	Terre Adelie	20 Oct-15 Nov	Mougin (1968)
	Marion Island	18 Sep-2 Oct	Burger (1978)
	Iles Crozet	26 Sep-17 Oct	Voisin (1968)
	Macquarie Island	27 Sep-19 Oct	Johnstone (1978)

IDENTIFICATION

Giant petrels are the size of small albatrosses with wingspans of 150-210 cm; they weigh between 3.5 and 6.0 kg. In flight the large bills are obvious. They normally fly over the sea by slope soaring (Pennycuick, 1982) and regularly follow the coast and ships, feeding on refuse thrown overboard. Whilst Johnstone (1974) states that it is mainly *M. halli* that follow ships, I have also regularly seen *M. giganteus* following ships in the South Atlantic.

Plumages

M. giganteus has two colour phases, a white phase and a dark phase. White phase birds are completely white from birth except for occasional dark feathers scattered through the plumage. When the dark phase chick fledges it is uniform dark charcoal grey, often with some white flecks around the head. As the birds age the feathers generally become more brownish-grey in colour, particularly on the back and wings. Starting with the cheeks and throat, the head and neck become more mottled and then whiter with age until some old birds have an almost pure grey-white head and neck. However, the under-parts remain as dark as the upper-parts and these birds therefore have a white-headed appearance (Johnstone, 1971) Figure 1-1. In many older birds the leading edge of the wings is pale, and this is distinctive in flight. This is not, however, a diagnostic feature as stated by Johnstone (1971, 1974), as at South Georgia older *M. halli* also show this characteristic.

M. halli nestlings fledge with an identical plumage to dark *M. giganteus* and it does not have a white phase. In the South Atlantic

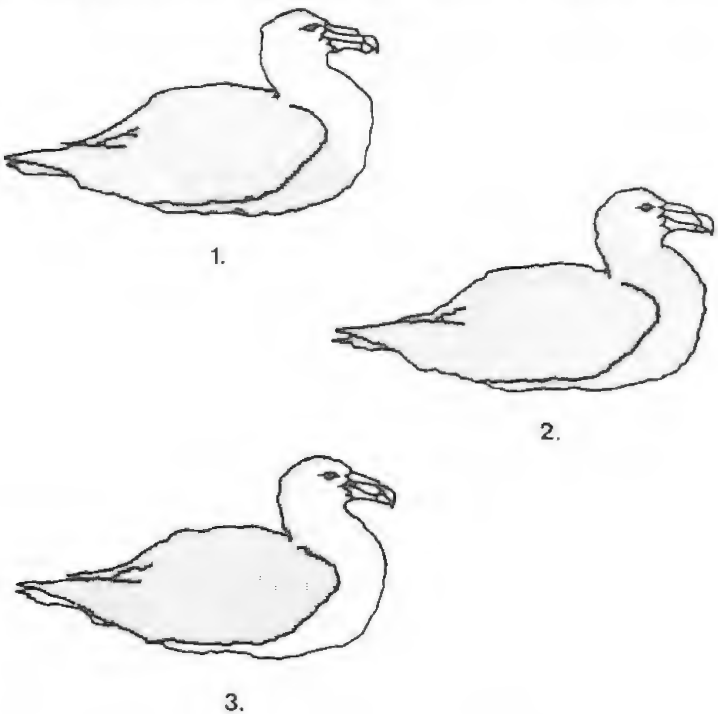


Fig 1. Plumage types of adult giant petrels: 1 — typical "white-headed" *M. giganteus*; 2 — typical plumage of *M. halli* birds at New Zealand and Macquarie Island breeding sites; 3 — plumage of an old *M. halli* at South Georgia.

they also become paler with age but in a different way to *M. giganteus*. The back and wings become progressively greyer, whilst the back of the neck and crown become more mottled but never totally pure grey-white as in *M. giganteus*. The cheeks, throat, front and sides of the neck and all the under-parts become mottled and then progressively whiter. Although the under-parts never become pure grey-white, retaining some grey feathers, older birds in flight show a very marked contrast between the darker upper-parts and the almost white under-parts (Figure 1-3). As noted above, old *M. halli* can have pale leading edges to the wings.

At present there is little information on changes with age but 7-8 year old birds at South Georgia normally had mottling around the face. Probably the extent and rate of whitening of the plumage is very variable individually. The range of plumages within different populations, however, is also variable. At South Georgia *M. halli* with very pale under-parts are not uncommon (pers. obs.) and they occur at Gough Island, and yet adults from Crozet, Macquarie and other New Zealand islands only seem to become whitish around the facial area (Warham, 1962; Bourne & Warham, 1966, Johnstone, 1971, 1974; Voisin, 1976). Figure 1-2. *M. giganteus* occurring at breeding localities in the Falkland Islands and South America also tend to be dark (Bourne & Warham, 1966; Johnstone, Shaughnessy & Conroy, 1976). The feathers also become faded between moults, losing the original greyish sheen and becoming paler and browner as the season progresses.

Sexual Differences

The sexes show no difference in plumage but at South Georgia females of both species are about 75% the weight of males (Hunter, in Croxall, 1983). Males have longer and deeper bills so that with experience birds can be sexed in the field. Unfortunately, whilst there is very little overlap between the sexes in bill length, their sizes in different populations vary markedly, so only birds of known provenance can be sexed on measurements. However, all birds with bills under 90 mm in length are likely to be females and those with bills over 100 mm in length are likely to be males.

Bill Colouration

The two giant petrel species are usually identified at sea by the bill colouration. In both species it is mainly pale pinkish-ochre to horn coloured but the ungues (end-plates) are coloured pale green in *M. giganteus* and reddish in *M. halli*. From a distance *M. giganteus* gives the appearance of having a uniformly coloured bill whereas *M. halli* shows a bill with an obvious dark tip. Older *M. giganteus* chicks have the bill coloured similarly to the adults, but *M. halli* chicks tend to have rather yellowish bills and may lack the reddish tip at fledging. In both species there can be a variable amount of black marking on the ungues.

The bill colouration seems uniform throughout the range

except for birds on the Falkland and Gough Islands which are described as having a very bright green bill tip (Johnstone *et al*, 1976; Devillers & Terschuren, 1980).

Eye Colouration

Most white phase *M. giganteus* and fledglings of both species have dark brown irides. In dark phase adults of both species and a few white phase birds (Conroy, Bruce & Furse, 1975) the irides become greyer with age though the rate at which this process occurs is very variable (Johnstone, 1974).

SUMMARY

Apart from white phase *M. giganteus* the only reliable species identification criterion for giant petrels in good viewing conditions is bill colour, and this should be the main feature that field observers look for. Plumage colouration and locality data may also provide supporting evidence in some cases.

ACKNOWLEDGEMENTS

I wish to thank J. P. Croxall and W. N. Bonner for helpful comments on the manuscript.

REFERENCES

Bourne, W. R. P. 1982. Giant petrels, pale great skuas, and Kumlien's Gulls in north-west Europe. *Sea Swallow* 31: 51-53.

Bourne, W. R. P. and Warham, J. 1966. Geographical variation in the giant petrels of the genus *Macronectes*. Ardea 54: 45-67.

Bourne, W. R. P. and David, A. C. F. 1981. Nineteenth century bird records from Tristan Da Cunha, Bull. B.O.C. 101: 247-256.

Burger, A. E. 1978. Interspecific breeding attempts by *Macronectes giganteus* and *M. halli*. Emu 78: 234-235.

Conroy, J. W. H. 1972. Ecological aspects of the biology of the giant petrel *Macronectes giganteus* (Gmelin) in the maritime Antarctic. Sci. Rep. Br. Antarct. Surv. No. 75: 1-74.

Conroy, J. W. H., Bruce, G. and Furse, J. R. 1975. A guide to the plumage of giant petrels. Ardea 63: 87-92.

Croxall, J. P. 1983. Sexual dimorphism in Snow Petrels *Pagodroma nivea*. Notornis 29: 171-180.

Devillers, P. and Terschuren, J. A. 1980. Les petrel geants (*Macronectes*) des Iles Falklands et du sud de l'Amerique de Sud. Gerfaut 70:447-454.

Fisher, H. I. 1965. Bird records from Midway Atoll, Pacific Ocean. Condor 67: 355-357.

Johnstone, G. W. 1971. Giant petrels. Aust. Bird Bander 9: 86-87.

Johnstone, G. W. 1974. Field characteristics and behaviour at sea of giant petrels in relation to their oceanic distribution. Emu 74: 209-218.

Johnstone, G. W. 1978. Interbreeding by *Macronectes halli* and *M. giganteus* at Macquarie Island. Emu 78: 235.

Johnstone, G. W., Shaughnessy, P. D. and Conroy, J. W. H. 1976. Giant petrels in the South Atlantic: new data from Gough Island. S. Afr. J. Antarct. Res. 6: 19-22.

King, B. 1982. A giant petrel near the Wolf Rock, Cornwall. *Sea Swallow* 31: 48-49.

Meeth, P. 1969. Giant petrel *(Macronectes giganteus)* in West European waters. Ardea 57: 92.

Mougin, J-L. 1968 Etude écologique de quatre espèces de pétrels antarctiques. Oiseau Revue fr. Orn. 38, no. special: 1-195.

Murton, R. K. and Westwood, N. J. 1977. *Avian. Breeding Cycles.* Oxford: Clarendon Press.

Parmelee, D. F., Fraser, W. R. and Neilson, D. R. 1977. Birds of the Palmer Station area. Antarct. J. U.S. 12: 15-21.

Pennycuick, C. J. 1982. The flight of petrels and albatrosses (Procellariiformes) observed in South Georgia and its vicinity. Phil. Trans. R. Soc. Lond. (B) 300: 75-106.

Verrall, K. 1982. The occurrence of a large petrel, a pale great skua and a large tern off Islay. *Sea Swallow* 31: 49-51.

Voisin, J-F. 1968. Les pétrels géants *Macronectes halli* et *M. giganteus)* de l'Ile de la Possession. Oiseau Revue fr. Orn. 38, no. special: 95-122.

Voisin, J-F. 1976. Observations sur les pétrels géants de l'Ile aux Cochons (Archipel Crozet). Alauda 44: 411-429.

Voisin, J-F. and Bester, M. N. (1983). The specific status of giant petrels *Macronectes* at Gough Island. In Cooper, J. (ed.) *Proceedings of the Symposium on birds of the sea and shore. 1979.* Cape Town : African Seabird Group.

Warham, J. 1962. The biology of the giant petrel *Macronectes giganteus*. Auk 79: 139-160.

Warham, J. and Bell, B. D. 1979. The birds of Antipodes Island, New Zealand. **Notornis 26: 121-169.**

Stephen Hunter, British Antarctic Survey, Natural Environment Research Council, High Cross, Madingley, Cambridge, CB3 0ET.

A CORPORATE VIEW OF THE *INVINCIBLE* FALKLAND PIGEON

By Commander F. Milner, R.N.

The unexpected ringing of the telephone at 6 am is always an unpleasant experience, none more so than when the voice suggests you should return to your ship as soon as possible. Other unaccustomed words such as Junta, Galtieri, scrap merchants, South Georgia and Malvinas all struggled to make their impact on my fast awakening consciousness. Eight months later I joined the R.N.B.W.S. after having experienced the events of a lifetime, not least of which was the opportunity to observe many sea birds over a relatively long period in a confined area of the South Atlantic.

H.M.S. *Invincible* sailed on Operation Corporate from Portsmouth on 5 April 1982 routed outside all shipping lanes to Ascension Island (16 April) and arrived in the vicinity of the Falkland Islands on 30 April. For the next 50 days we operated more or less within 50 miles of 52°S 56°W some 100 miles to the east of Port Stanley and inside the Total Exclusion Zone (TEZ), a 200 mile circle around the Falkland Islands.

The weather over the next 45 days until 14 June fell broadly into three distinct patterns. First there were the days which we spent in thick fog. Usually the wind was in the northwest and varied in strength from nil to 20 knots. The fog was generally 100 to 400 feet thick and little bird activity was discernible. This was hardly

surprising, for frequently we could not even see our own helicopters on the stern. The second weather pattern emerged when the wind was in the southwest. Usually the wind strength was force 6 to 8 and very heavy seas, low cloud, rain and indifferent visibility were the order of the day. The third pattern gave us fine sunny days, glorious flying weather and crystal clear visibility. These were the days when the Carrier Battle Group was most susceptible to air attack. They were also the best days to study our frequent sea bird visitors such as the Black-browed Albatross *Diomedea melanophris*, the Wandering Albatross *Diomedea exulans*, Grey-headed Albatross *Diomedea chrysostoma*, Southern Giant Petrel *Macronectes giganteus,* Dove Prion *Pachyptila desolata,* Cape Pigeon *Daption capensis* and finally the Yellow-billed Sheathbill *Chionis alba*. Other birds were in evidence, but the above represented the most frequent customers in our circuit.

In general, most of the albatrosses, petrels and prions had a well developed sense of flight safety, maintaining good vertical or horizontal separation from returning aircraft. The low flying albatrosses and prions achieved vertical separation, whilst the petrels, which were usually at about 50 feet altitude, generally took lateral avoiding action. The sheathbills, on the other hand, are all potential candidates for the R.N. Flight Safety Course, since they seemed to have little awareness of the approach of an aircraft until very late. Notwithstanding the sheathbills' low flight safety rating this article is principally devoted to their interaction with our ship since they were the only sea birds to take advantage of the opportunity to qualify for deck landing certificates.

The sheathbill seems to have at least three common names, and in ignorance we gave it a fourth. Captain G. Tuck's most helpful *Field Guide to Sea Birds of Britain and the World* refers to the Yellow-billed Sheathbill *Chionis alba* and Robin Wood's book *Falkland Islands Birds* refers to the Snowy Sheathbill *Chionis alba* also known locally as the Kelp Pigeon. So like a pigeon are these birds that on first acquaintance we christened them the 'Falkland Pigeon' and their sudden arrival on our first day in the TEZ seemed to us a favourable omen. Four birds joined the ship on 1 May and remained in or on the ship until 4 May - the day during which H.M.S. *Sheffield* was hit.

In appearance these birds had a completely white plumage and black legs with no discernible web between the toes. Their bills were short, stubby and dirty yellow in colour with a black tip. The wattle at the base of the bill was most pronounced. Their flight beats appeared strong but laboured, and lacked the grace of an albatross and the agility of a Wood Pigeon *Columba palumbus*.

During the first day they remained in close proximity of the ship usually on the beam and rarely more than a mile away. Their general flying height was about 10 to 20 feet above the waves with the odd excursions up to the ship's flight deck level (59 feet). They usually remained as a group of four although occasionally they split into two pairs.

2 May saw the first deck landings by what appeared to be the same group of four sheathbills. Once on board they strutted up and down the 600 foot long flight deck pecking at the numerous ringbolts placed at regular intervals all over the deck. The ringbolt recesses obviously provided a fascination for them, possibly because they represented potential sources of food and fresh water, but their search was generally unrewarded. It became necessary to chase them away before launching our Sea Harriers, but the sheathbills seemed very reluctant to leave. Once airborne they would rapidly select a clear area and land again. They were relatively tame, allowing the flight deck teams to approach very close in spite of being shouted and waved at. The most successful tactic evolved for getting them off the flight deck was to herd them up to the top of the ski-jump and then give them a loud "BOO" over the flight deck broadcast. This always had the desired effect of launching them, followed shortly by the Sea Harriers.

The ski-jump, which is a 90 foot 55 ton sloping structure of 7° at the foremost part of the flight deck, always caused the sheathbills problems because of the variation in wind strength over its length. It was rare for there to be less than 20 knots over the deck and this caused the birds to tack from side to side as they climbed up to the top. Once at the top they would frequently be blown over and tumble down the slope like some novice skier or drunk. If they managed to maintain their balance, they had to adopt a positive lean into the increased wind velocity at the top of the ski-jump. All this gave us much amusement and also one of the rare opportunities to catch one in hand. After being placed in a sheltered area the sheathbill recovered and was soon airborne again or scavenging amongst the ringbolts.

At 1800 on 4 May the four sheathbills took departure from the ship, and it was not until 12 May that we were revisited. My diary entry for 12 May reads: "Dawn action stations. Weather improving (from thick fog of last two days). Skies clear and visibility good but wind in excess of 30 knots all day. During afternoon air raids developed on H.M.S. *Glasgow* and H.M.S. *Broadsword* inshore. Return of more sheathbills observed at 1515. Sea quite rough now." This time we were graced with greater numbers, ten being the greatest number counted at any one time. They landed on deck at frequent intervals and still had difficulty in mastering the slope of the ski-jump, but their awareness of aircraft had improved. By this time there were considerable numbers of merchant ships in our vicinity and we received less dedicated attention from our Falkland Pigeons. They remained with us until 21 May when the landings at San Carlos took place.

The final period when we were again under scrutiny from our sheathbills was from 10 to 14 June 1982, this time from numbers varying from six to ten. Their pattern of behaviour was as before, flying round the ship and sometimes resting on the deck. It was during this period that our first sheathbill night deck landings were

made, but by only one or two of them. Whenever on deck they settled into the same routine of ringbolt scavenging and ski-jump climbing. They always seemed to be surprised when bowled over by the wind and rarely gave up the attempt at achieving a perch on the top of the ski-jump.

Was it an omen that our first encounter was on the day we entered the TEZ and our last on the day of Argentina's surrender in Port Stanley? It seems strange that despite our continued presence in the vicinity of the Falklands, both close inshore and offshore until 28 August, no further sheathbills ever came our way.

My final war diary entry for 15 June reads: "0330 ceased all helo flying owing to intensity of gale. First time for 71 days weather stops flying. Dawn reveals storm lashed seas, ship pitching 3 to 4 degrees. No birds in sight. News from ashore states 8,000 POW causing severe headache for our own troops. P.M., tragic accident on the flight deck. Will our friends (the sheathbills) return? Now that the Argentines have surrendered ashore, will they have the stomach to continue air attacks? I hope and think not."

"At length did cross a Sheathed bill
Through the mists it came
As if it had been a messenger
We hailed it in His name"

With apologies to S. T. Coleridge.

REFERENCES

TUCK, G. S. and HEINZEL, H. 1978. A Field Guide to the Seabirds of Britain and the World. Collins. London.

WOODS, R. W. 1982. The Birds of the Falkland Islands. Anthony Nelson, Oswestry, Shropshire.

Commander F. Milner, R.N., Pomparles, Northover, Glastonbury, Somerset.

SHORT NOTES

A SATELLITE VIEW OF BIRD MIGRATION BETWEEN ICELAND AND SCOTLAND

By W. R. P. Bourne

Most landbirds normally appear to migrate across the sea too high to be detected by anything except radar. While analysing the results of the great co-operative enquiry into bird migration at the north-west European coastal lights mounted by the British Association for the Advancement of Science in the 1880s, William Eagle Clarke observed that such movements may sometimes be arrested by "barriers of bad weather", eventually identified as the fronts between air masses which only began to appear on our weather maps in 1942. The Royal Naval Birdwatching Society has been collecting reports of such events summarised annually in *Sea*

Swallow for many years, but until recently it was difficult to interpret them for lack of sufficiently precise meteorological information at sea.

Further progress has now become possible with the introduction of weather satellites in 1976, and observations making use of their photographs have since been published on both sides of the Atlantic (*Scientific American* 239:138-145, *Marine Pollution Bulletin* 10:124-125, 13:5-6). It may be useful to place on record another example involving one of the most hazardous migrations undertaken by birds, across the North Atlantic storm-track between Iceland and Britain, described by Kenneth Williamson in a

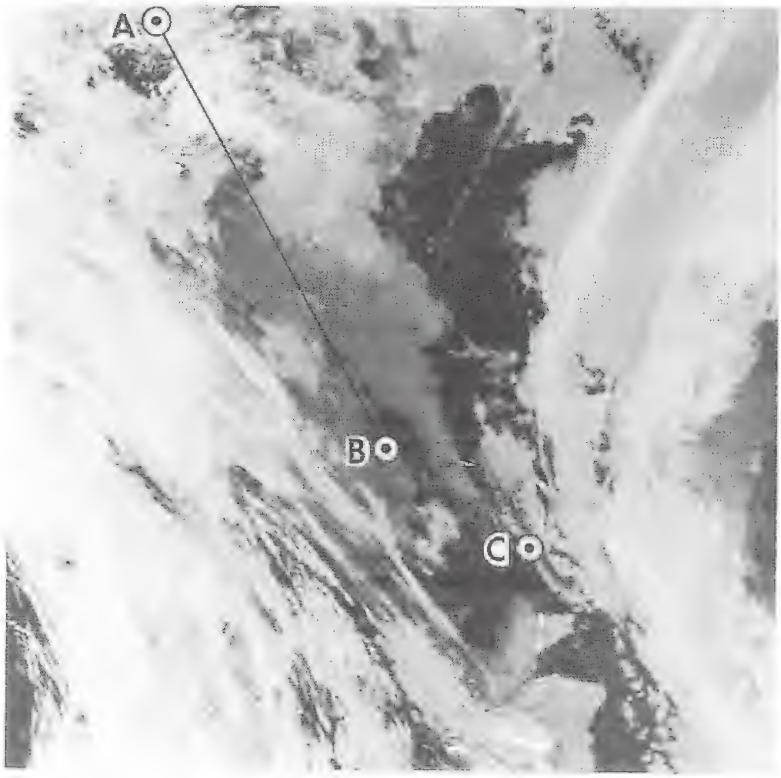


Figure 1. Infra-red satellite photograph of the area between Iceland and Scotland at 2042 on 4 September 1978. **A** — Iceland (probably clear earlier but now covered in cloud moving in from the west). **B** — Location where birds which probably left Iceland while it was clear there were seen as they encountered the cloud. **C** — Location of a similar incident where birds arrived in even larger numbers at a rate of 2-3 per square meter before satellite photographs became available on the same date in 1975. Scotland is dimly visible immediately to the south.

Photo: Department of Electrical Engineering and Electronics, Dundee University.

series of contributions summarised in *British Birds* (51:209-302) in 1958.

During the course of a research cruise off the north of Scotland, Rodney Payne saw large numbers of Meadow Pipits *Anthus pratensis* and Wheatears *Oenanthe oenanthe* and some White Wagtails *Motacilla alba* settle on the vessel at a density of one per square metre following the onset of a light north wind and drizzle at 68½°N 8°W on the night of 4-5 September 1978. An examination of a satellite picture taken at the time (Fig. 1) suggests that the birds must have taken off from Iceland during a spell of clear weather following the departure of a depression to the east the previous day. They then flew south with following winds down the corridor of fine weather associated with the passage of a ridge east across the area until they encountered cloud approaching from the west ahead of another depression moving in from the Atlantic overnight, when they descended around the vessel in search of a refuge and were attracted by its lights.

In the normal course of events they would presumably fly around until they either found somewhere to settle or the weather cleared and they could continue their journey, and if neither happened soon enough perish in the sea, which will explain the occasional arrival of large numbers of exhausted and dying birds under such conditions on ships, lighthouses, and North Sea oil installations. It would be useful to have more precise observations of what happens under such conditions.

BIRDS SEEN AT THE TEMBUNGO GAS FLARE, NORTH BORNEO DURING THE DEVELOPMENT OF TYPHOON 'CLARA'

By Captain D. M. Simpson, M.N.

On the night of 19 September 1981 I witnessed a phenomenon of which I had heard but never seen, that is, the fatal effect of an offshore gas flare on migrating landbirds. At 2100H *Pacific Teak* moored to the Tembungo Oil Terminal platform, 6°37′N 115°47′E. A 30-40 knot southwest wind was producing a rough sea, but visibility on this moonless night was excellent. Typhoon 'Clara' was quickly developing, centred 800 miles NE and travelling WNW at this time towards the Philippines (*Mariners Weather Log* 26:34 and 26:191).

Wheeling around the burning gas flare was a great host of small passerines. The majority appeared to be *Phylloscopus* warblers, probably Arctic Warblers *P. borealis* (estimated total 300), and *flava* wagtails (120). By spotlight I picked out one Crow-billed Drongo *Dicrurus annectans* and there were doubtlessly other species of smaller passerines, probably flycatchers and pipits. Also

swarming around the lighted area were many small tight flocks of Northern Phalaropes *Phalaropus lobatus* totalling about 300 birds. They were not in trouble and seemed to be enjoying themselves. Not so the passerines; many warblers were seen to stray too close to the bright flare and perish. Most of the birds avoided this fate, but could not seem to pull themselves away from the glare. They wheeled around in a hapless mass exhausting themselves in the strong wind. Refuge was available for them on the platform but they made no effort to rest, nor did they pull themselves away from the flare and head for the shore.

Due to the deteriorating weather, resulting from the developing typhoon, *Pacific Teak* had to pull off the platform at midnight, and truth to tell I was relieved to do so for I found it heartbreaking to watch so many hundreds of these plucky little birds in such distress, so near and yet so far from their destination.

At daybreak the following morning there was not a bird in sight. It would be nice to think that the birds made it to the shore, but I fear the worst. Many, and probably most, of them must have ditched exhausted into the sea before the night was over.

Captain D. M. Simpson, 20 Heather Drive, Eskdale Park, Whitby, North Yorkshire

(Small numbers of landbirds are now being reported regularly from the growing number of offshore oil installations all round the world, and it would be useful if everyone who has the opportunity could keep a regular log of the weather and things seen. Observations in the North Sea summarised in the *Marine Pollution Bulletin* 10:125-126 and 13:5-6 (see also *Seevogel* 2:33-37) indicate that the number of birds seen only increases when they are caught by bad weather while crossing the sea, when they appear to use the installations as landmarks if they become lost, and may eventually die in large numbers of accidents and exhaustion if conditions do not improve in time. W. R. P. Bourne.)

GREAT SKUA ATTACKING AND KILLING HERRING GULL AT SEA

By Bernard King

I was interested in S. J. Hingston's paper with the details of a Great Skua *Stercorarius skua* pursuing and killing a Kittiwake *Rissa tridactyla* off the northeast coast of Scotland in July 1980, *Sea Swallow* 31:25-5, and I am able to relate a similar occurrence when an adult Herring Gull *Larus argentatus* was the victim.

I visited St. Ives, Cornwall on 15 November 1977 when Great Skuas and Arctic Skuas *S. parasiticus* were seen occasionally flying across St. Ives Bay, some of which came very near the coast. It was on such an occasion that a Great Skua particularly attracted my

attention because, while in flight, it singled out and pursued a Herring Gull which had become detached from a large feeding flock at the sewage outfall on the ebb tide. The predator relentlessly followed the gull in all its manoeuvres to escape, but after seven minutes or so, apparently exhausted, the gull alighted on the sea. This proved fatal. The Great Skua immediately alighted on the back of its victim, and by its weight submerged and so drowned the struggling Herring Gull. During this process the gull was also turned over on its back, its head and neck below the surface. Then, as it floated, the skua swam in attendance and commenced to pull away the breast feathers with vigorous bill movements, and after some ten minutes exposed the gull's breast bone. It soon penetrated the flesh and beakfuls of entrails were pulled away and immediately swallowed. For the next twenty minutes the Great Skua avidly fed, only occasionally taking a little rest before resuming feeding. Gradually, as the tide receded, predator and victim floated well out to sea and eventually, fully satiated, the skua flew off and was not seen again. The carcase soon attracted other seabirds including those of its own kind.

From the literature, Great Skua predation on a wide variety of birds, marine life and mammals is clearly quite common and well documented. A useful summary of Great Skua foods at North Atlantic breeding localities and other records of predation were published by R. W. Furness in *Ibis* 121:86-92.

Bernard King, Gull Cry, 9 Park Road, Newlyn, Penzance, Cornwall.

FEEDING BEHAVIOUR OF WINTERING LITTLE GULLS

By Bernard King

The Little Gull *Larus minutus* occurs occasionally in winter in the British Isles though the majority are thought to winter semi-pelagically south to northern Africa. P. A. Lassey and M. E. Greenhalgh, *Brit. Birds* 62:385-386, document numerous Lancashire sightings peaking in February/March (including a flock of 137), May/June and August/September which were evidently passage migrants. In regard to winter feeding behaviour, J. Driver, *Brit. Birds* 65:355, observed a first-winter bird in January 1972 with Black-headed Gulls *L. ridibundus* dip-feeding over the lower slopes of Pendle Hill, Lancashire and taking small insects. My experience of a Little Gull wintering inland occurred firstly near Chew Valley Lake, Avon when an immature was observed from December 1959 to late March 1960 (*Bristol Ornith.* 13:102). Like the Lancashire gull it attached itself to a flock of Black-headed Gulls. The gull fed with these companions across grass meadows and arable land, where I observed it extracting earthworms. This it

did with backward tugging bill and head movements with its legs spread to give it the necessary leverage. The earthworms were always small and so quickly swallowed. Other items were obtained - especially after heavy rain or when fresh ploughing revealed insects. On no occasion was the Little Gull seen to be molested by the larger gulls. There were, however, instances when the Little Gull broke away to find masses of dead two-winged insects (mostly *Diptera*) in the white spume which sometimes lay heaped on the windward shores of the lake. By dipping into this material rather comically, it would emerge looking almost wholly whitish; the soft stuff, however, quickly fell away. Herring Gulls *L. argentatus* and surface-feeding ducks also took advantage of this ample food supply.

My second experience concerns a previously unpublished record of an immature Little Gull on the Cornish coast. I observed it almost daily from January to late March 1975 in Mount's Bay along the shores of Marazion, as well as at the marsh nearby. It was often seen feeding in flight above the tide's edge on flood tides which brought very small crustaceans to the surface. These also formed a regular supply of food for other seabirds. I was surprised to see it plunging off-shore and completely submerging on occasions for at least two seconds. Sometimes small fish were brought to the surface, and while the gull regained flight its prey was manoeuvred and then swallowed head first. It should be stressed that this manner of feeding was commonly practised by the Little Gull. The Little Gull at Marazion did not however confine its feeding activities to the coast and frequently visited the marsh nearby. Flying at heights of a metre or less, and in order to maintain balance, its wings were held high above its body and beat rapidly while the bill and head were held pointing vertically downward. In this way, and by dipping down, the gull was able to obtain *Diptera* and other aquatic insects which swam on the surface of large shallow pools. Sometimes, while still in flight, it extended its legs to paddle and fly forward over tall grass surrounding the pools, thus causing the insects to fly and many of these were then quickly swallowed. This fascinating feeding behaviour was repeated many times during a feeding spell.

It is thought there may be many members of the Society visiting the wintering localities of the Little Gull on the coasts of Europe and south to the Red Sea and Persian Gulf, and their observations on the feeding habits of the Little Gull in these areas would be valuable.

Bernard King, Gull Cry, 9 Park Road, Newlyn, Penzance, Cornwall.

BOOK REVIEWS

THE HISTORY OF HAWAII

Olson, S. L. and James, H. F. 1982. *Prodromus of the fossil avifauna of the Hawaiian Islands*. Smithsonian Contributions to Zoology No. 365, pp. 59.

It has long been known that the most diverse evolution of birds occurred on the larger isolated land-masses of the southern hemisphere such as New Zealand, Madagascar and the Mascarene Islands, where they were shielded from competition with other animals. Until recently less attention was paid to the other islands north of the equator, although the largest in the Hawaiian group were known to support an even more remarkable radiation of finches than the famous one in the Galapagos. This important contribution describes how over the last decade a wide range of extinct species have also been found in the subfossil deposits in the caves and sand-dunes of five of the Hawaiian Islands, already amounting to forty new forms even before examining the largest island thoroughly. They probably died out as a result of hunting and ecological changes following the arrival of the Polynesians 1,500 years ago. They include a small gadfly-petrel, two ibises, seven geese, an eagle and a small hawk, three owls, seven rails, two crows, a honey-eater, at least fifteen more finches, and also Audubon's Shearwater and the Black-naped Tern. Between them they render a series of recent speculations about the rate of colonisation of, and evolution on, islands completely ridiculous. One wonders what still remains hidden on the other oceanic islands of the world.

W. R. P. Bourne

A NEW IDENTIFICATION GUIDE TO SEABIRDS

Harrison, P. 1983. *Seabirds, an identification guide*. Pp. 448. Croom Helm Ltd., London, ISBN 0-7099-1207-2.

One has to admire the single-mindedness of a birder who sees a need for an identification guide to a group of birds, then devotes a significant part of his productive life to producing a book to satisfy this need. Such was Peter Harrison's approach to the newest book on seabirds. Starting with the germ of an idea gathered from a windy look-out post on St. Ives Island, he has travelled many oceans and as a one-man effort, with the support of an understanding wife, illustrated *and* written this entirely new seabird book. The first part is devoted to coloured plates (nearly 90 in number) and is followed by a very comprehensive descriptive text covering plumage, flight, habits and jizz, and distribution and migration (including details of nesting localities and dates). Each of the 312 species receives on average about half a page of text, with some such as frigate-birds and *Stercorarius* skuas at least one full page. A final section gives distribution maps that the seagoing mariner will find indispensable. Peter Harrison admits that dispersal of the more pelagic species remains largely unknown and that the maps are just a summary of our incomplete knowledge. *D'accord*. Their ease of use would, however, have been greatly improved by not omitting the basic reference meridians and parallels of latitude. Beware also some maps are not orientated exactly north-up. Readers of this journal will recognise the schematic sketches of Wandering and Royal Albatrosses which appeared in *Sea Swallow* 30:68-77. Introductory comments to the species accounts are helpful in pointing out what to look for in identifying particular species within a group, e.g. *Diomedea* 'essential to record accurately the width and extent of underwing margins', and admissions where specific identification is problematical or is usually impossible at sea, e.g. *Pelecanoides*.

Overall this is an easy to use, practical and well thought out guide packed with helpful information which ably updates knowledge and pushes out the frontiers of seabird identification. I would recommend it to everyone with an interest in seabirds.

S. E. Chapman.

USEFUL ADDRESSES

Hon. Member and Advisor R.N.B.W.S. Dr W. R. P. Bourne, M.B.O.U., University of Aberdeen, Dept. of Zoology, Tillydrone Avenue, Aberdeen AB9 2TN.

R.N.B.W.S. Local Representatives

Dartmouth Lt.-Cdr. E. G. Bloomfield, R.N. (Retd.), Britannia Royal Naval College, Dartmouth, South Devon TQ6 0HJ.

Devonport Area K. E. Partridge, 165 Stanborough Road, Elburton, Plymouth, Devon PL9 8NY. Tel. Plymouth 45475.

Portsmouth Area Lt. Cmdr. B. F. Witts, R.N., Oakwood, Duffield Lane, Woodmancote, Emsworth, Hants. Tel. Emsworth 71497 *or* H.M.S. *Excellent*, Ext. 5178; and Lt.-Col. P. J. S. Smith, R.M., 8 Fairthorne Gardens, Alverstoke, Gosport, Hants. PO12 3PO. Tel. Gosport 86900.

Portland Mr M. Rogers, Portland Bird Observatory and Field Centre, Old Lower Light, Portland, Dorset. Tel. Portland 820553 (daytime).

Faslane Captain M. G. T. Harris, R.N., H.M.S. *Neptune*, Faslane, Helensburgh, Dunbartonshire G84 8HL.

Gibraltar Dr Clive Finlayson, M.B.O.U., 19 Warspite House, Varyl Begg Estate, Gibraltar.

Arabian Gulf Major M. D. Gallagher, M.B.O.U., P.O. Box 668, Muscat. Tel. 600 . 267 or via 722482.

INSTRUCTIONS TO AUTHORS

Interested persons are invited to submit contributions for *Sea Swallow*. Authors do not need to be R.N.B.W.S. members. Material may take the form of papers, notes, progress reports, letters or reviews.

Manuscripts should be typed in double spacing and submitted in duplicate. Figures and diagrams should be prepared in the size of final production.

The style used in *Sea Swallow* should be followed, with the standard abbreviations, nomentlcature and use of references as in *British Birds*.

Contributions are welcome at any time, but if for inclusion in the next edition, must reach the Editor by 1st February.